

THE CANADIAN ARCHITECT AND BUILDER

VOL. XVII.—No. 5. TORONTO AND MONTREAL, CANADA, MAY, 1904

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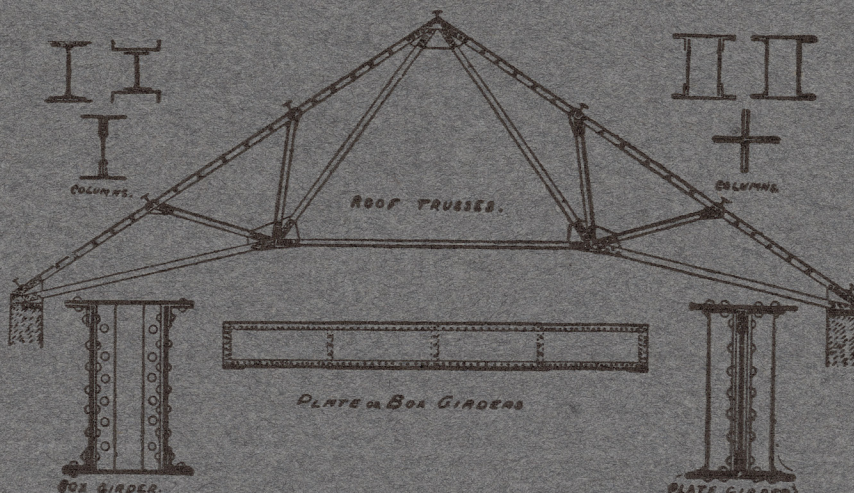
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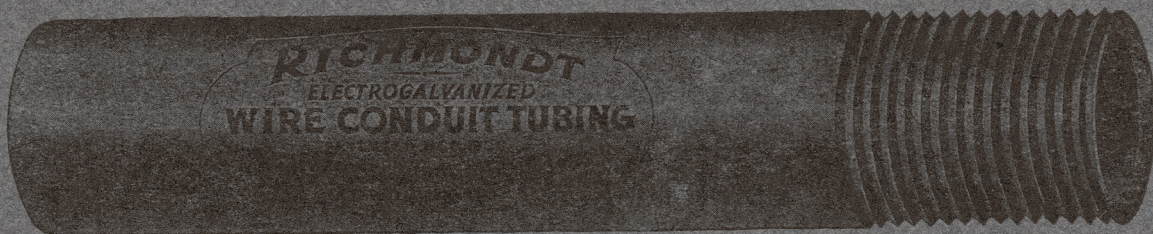
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The Canadian Architect and Builder

VOL. XVII.—No. 197.

MAY, 1904.

ILLUSTRATIONS ON SHEETS.

Competitive Design for Golf Club House.—Geo. W. Gouinlock, Architect.
Old Scotch Chair in a Glasgow Painter's Studio.
House in Brunswick Avenue, Toronto.—Bond & Smith, Architects.
Durham Castle Staircase.

ADDITIONAL ILLUSTRATIONS IN ARCHITECTS' EDITION.

Sketches of Old Buildings in Montreal by "Gargoyle" and Mr. Cecil Burgess.

ILLUSTRATIONS IN TEXT.

Views of Recent Toronto Fire.
Portraits of Officers of Winnipeg Builders' Exchange.

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OUR WINNIPEG OFFICE.

The publishers of this Journal have recently opened a branch office at No. 310 McIntyre Block, Winnipeg. A resident representative has been appointed who will be exclusively employed in advancing the circulation of this Journal and in keeping our readers informed regarding the latest developments throughout the west. The kind co-operation of our friends in the west is solicited in behalf of the success of this enterprise.

The demands of other matter upon our space compels us to defer to a future issue publication of a number of specially prepared articles on cement construction intended for this number.

Workmen's Compensation Act.

The variety of interpretations put upon the British Workmen's Compensation Act is such that contractors are kept in a state of constant anxiety and uncertainty with regard to their liability under the Act for damages to workmen. One of the latest decisions awards damages to a workman upon whom a wall fell while engaged in eating his lunch. The fact that usually this workman went home for his lunch, and that had he followed his usual practice he could not have been said to have been injured while engaged in his usual employment, seems to have had no weight with the court.

A curious illustration of the many unexpected influences which may affect the prices of commodities in everyday use, is afforded by the present war between Russia and Japan. As is well known in consequence of this war the price of wheat has advanced to the highest point reached in many years. This has led to an increase in the area sown to wheat and a decrease in the area sown to flax. In the Dakotas the reduction in the flax acreage is placed at 50 per cent. As a result linseed oil, the product of flax, and the basic material of all good paint, seems destined to be high in price. This in turn will aggravate the evil of paint adulteration, with which everybody wanting to secure a good and lasting quality of work has had to contend for some years past.

When last year the City Council of Toronto, at the instance of the labor unions, passed an amendment to the building by-laws compelling contractors to lay down temporary floors at every storey of buildings under construction, the new regulation was regarded by architects and contractors as a hardship, involving unnecessary expense and trouble. Its necessity was, however, shown by the death of a workman in Montreal the other day, who in attempting to cross from one side of a building to the other stepped on the end of a plank

which tipped, precipitating him to the ground from a height of five stories. If temporary floors had been laid down as required by the Toronto building by-law, this man's life would have been spared, and his wife and family of five young children would not have been deprived of the bread-winner. Workmen have a right to insist that every reasonable precaution be taken for their safety. The cost of necessary safeguards for this purpose should be included in contractors' estimates.

Timber Tests.

A plea is made by the Engineer-Record for a continuation of the timber tests conducted some time ago under the direction of Prof. Fernow of the Forestry Department at Washington. It is very properly urged that future tests, to be of practical value to architects, engineers and builders, should deal with timber as it must be purchased from the dealer, not with selected specimens, from which much better results will be secured. On this point our contemporary says:—While engineers already possess a large amount of experimental data in regard to the resistance and durability of timber a far larger amount of information than yet secured is most urgently needed, not only as to the ultimate resistance under different kinds of stress but also a much more complete knowledge of the conditions under which greater durability may be secured. The resisting value of the details of framing, the effect of preservative processes on both elastic and ultimate resistance and a great variety of other similar data are also still lacking.

Cement Tests.

With the rapidly increasing use of cement in construction work, the time has come when a systematic system of testing cement should be established. It is quite as much to the interest of cement manufacturers and dealers as to the interest of owners, architects and builders that all cement should be subjected to test. If this plan is not followed, we may expect to see failures in cement construction which will tend to weaken confidence in the material and greatly restrict its use. That there is a great deal of cement of poor quality on the market is a well known fact, and steps should be taken to prevent this material from getting into works of construction. A Canadian manufacturer of cement submitted a sample of his material to one of the Canadian scientific schools recently, and it failed to stand the hot test. If such was the result with a cement that may be supposed to have been specially selected for testing purposes, there is every reason to suppose that much of the cement bought and sold in the ordinary course of business is far below the proper standard of quality. In what way the testing of the material should be carried out is not quite clear. It has been suggested that the Government might inspect the material at the mills, as is done in Germany, but Governments are slow to act, and the adoption of a system might be indefinitely postponed if the Government were depended on to undertake the work. Perhaps a better plan would be for each city and town to adopt a regulation compelling all cement used within the municipality to be subjected to test. It is to be hoped that action will be taken in this direction at once, in order, as stated, that the development

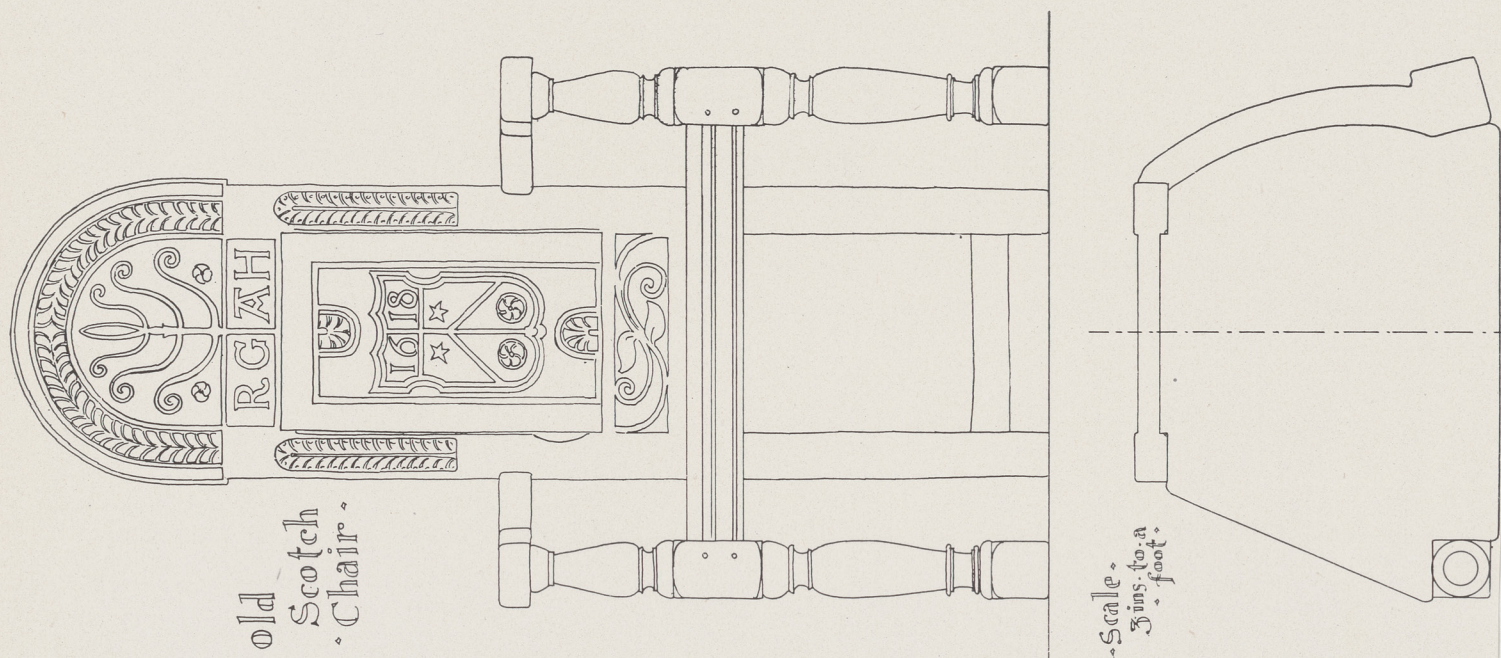
hich cement construction is now having, may not be retarded.

Building in the North West.

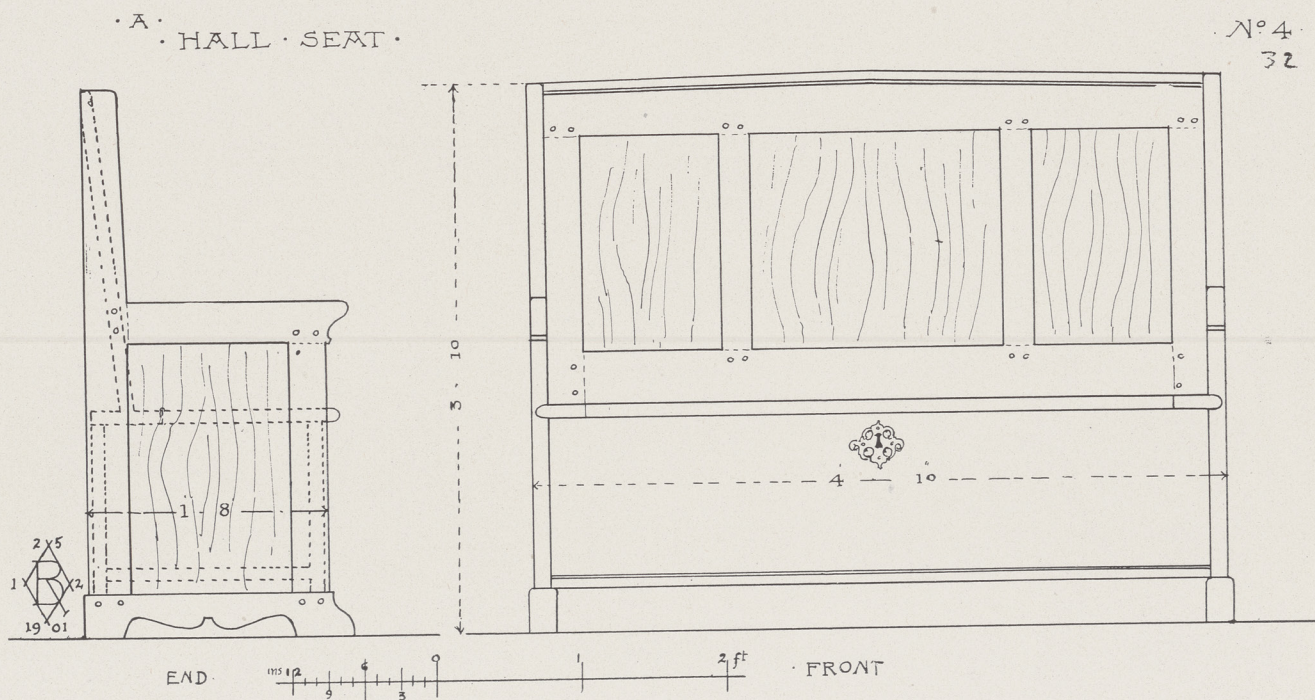
Probably nowhere on this Continent is there to be found greater activity in building operations than may be witnessed at present in the city of Winnipeg. Population is flowing into this city at such a rate that it is found impossible to build rapidly enough to meet the requirements for houses and buildings for business purposes. The value of new buildings erected last year was in the neighborhood of \$6,000,000. This year the figures will probably reach \$10,000,000. The population increased last year by 13,000, and will probably show a greater increase this year. The city directory shows a present population of 70,000. As a result of the demand for buildings, the number of architects and builders is rapidly increasing. There are at present about thirty practising architects in the city. Several eastern firms have recently opened branch offices. Building materials of every kind and skilled mechanics are in urgent demand. Fears are expressed lest the recent great fire in Toronto should interfere with the supply of materials and workmen required for this season's operations.

It is a fortunate thing for the city that, at the outset of its career several of the leading banks have erected on the principal business thoroughfare buildings which, in point of architectural beauty and substantiality, would do credit to any city. These buildings will serve as good examples for those to come after them, and will be likely to prevent the putting up of uninteresting and ugly buildings. Unfortunately, it has not been possible in the past to obtain red bricks at reasonable cost. Those manufactured in the immediate vicinity are grey and, while substantial in quality, give to the buildings an uninteresting effect. In such a bright clear atmosphere and a climate which in winter is sometimes severely cold, the use of warmer tints of color is desirable. The Dominion Bank, built of red sandstone from Lake Superior, has a very pleasing appearance, and should lead to the use of this stone in important buildings in the future. In view of the high price of stone and brick, it is probable that cement construction will become popular when a good quality of cement shall be manufactured in the Northwest. At present the material must be imported at a cost of \$5.00 per barrel, which prohibits its use on a large scale.

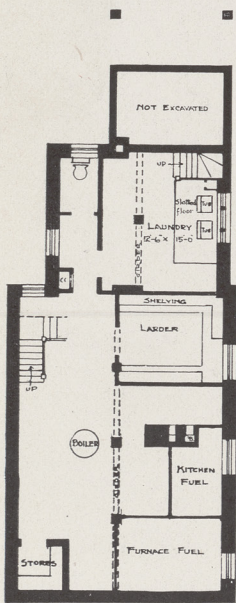
There are many differences to be observed in methods of construction employed in the Northwest, as compared with those in the East. The severity of the climate in winter makes it necessary to give the occupants of buildings greater protection against the cold. Hollow walls and box construction for windows are prominent features. Houses are built as far as possible without projecting features, chimneys being kept inside the walls in order that as much heat as possible may be retained within the building. It has been found that a thin hollow wall is of greater service as a protection against cold than a solid wall however thick. As during the period of frost there is little or no rain, no coping is required for brick walls and chimneys, and the exterior of buildings is not subject to disintegration by alternate thawing and freezing, as in a milder climate.



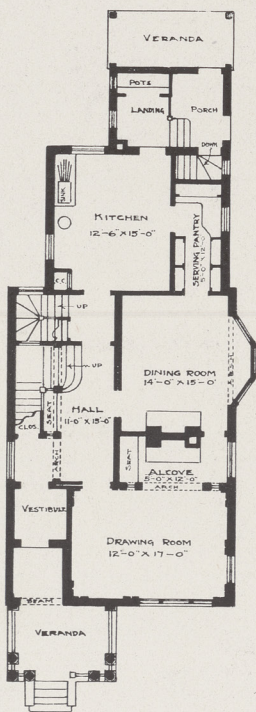
OLD SCOTCH CHAIR IN A GLASGOW PAINTER'S STUDIO.



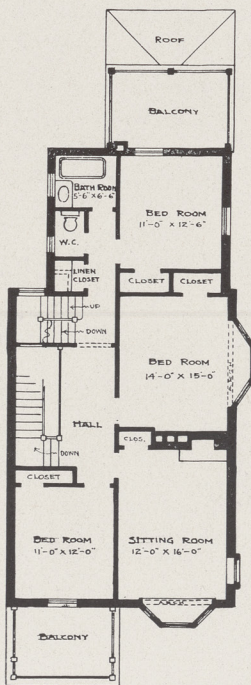
A HALL SEAT—ORIGINAL DESIGN BY ROBERT BROWN, BOSTON.



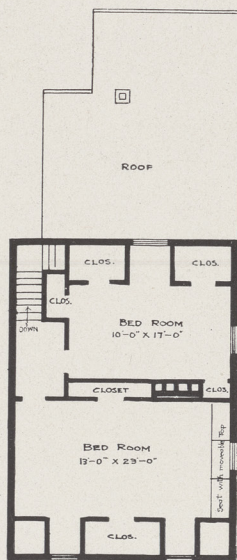
BASEMENT PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN.



ATTIC FLOOR PLAN.

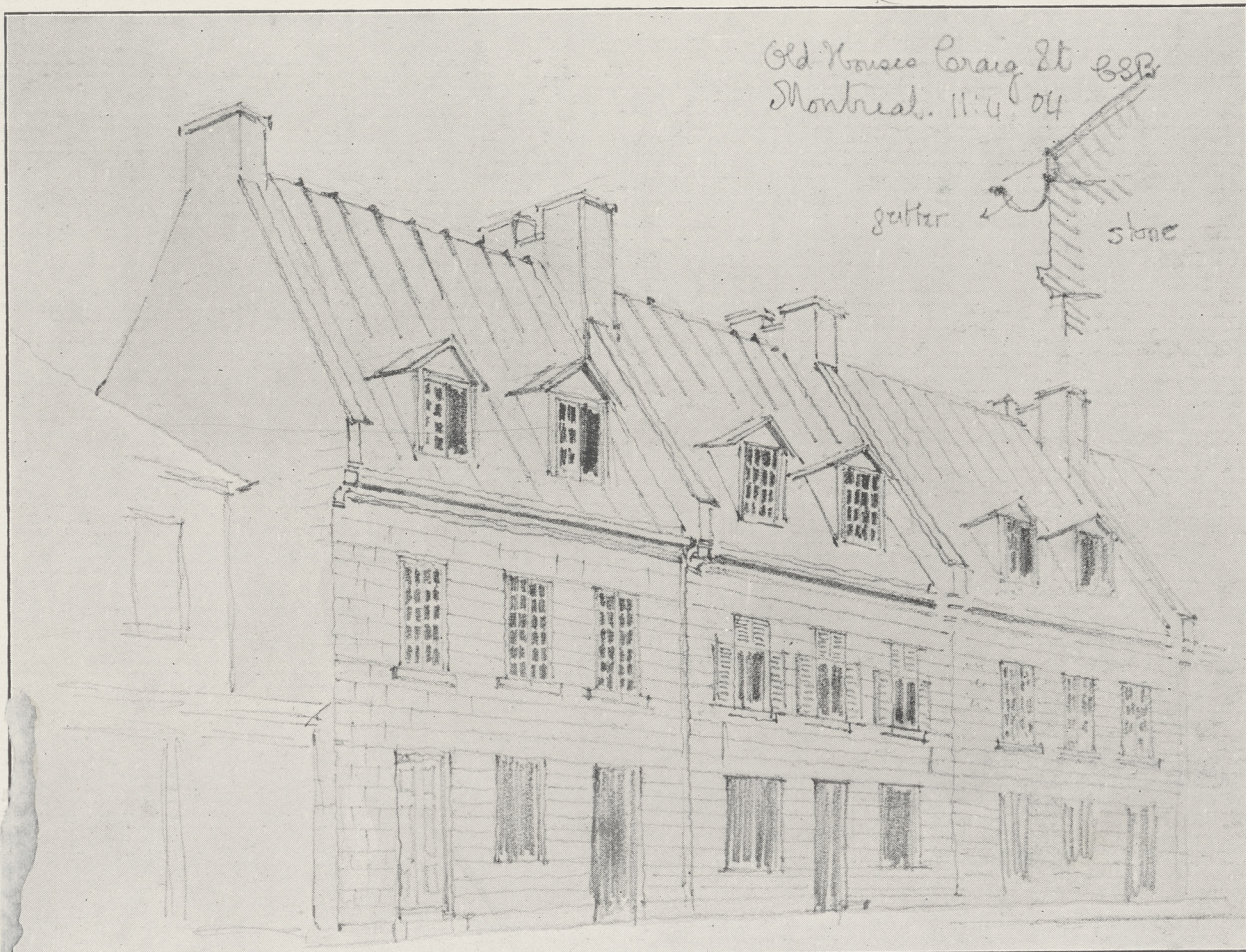
RESIDENCE ON BRUNSWICK AVE. FOR M. WHITE ESQ. TORONTO.

SCALE $\frac{1}{8}$ IN. = 1 FT.

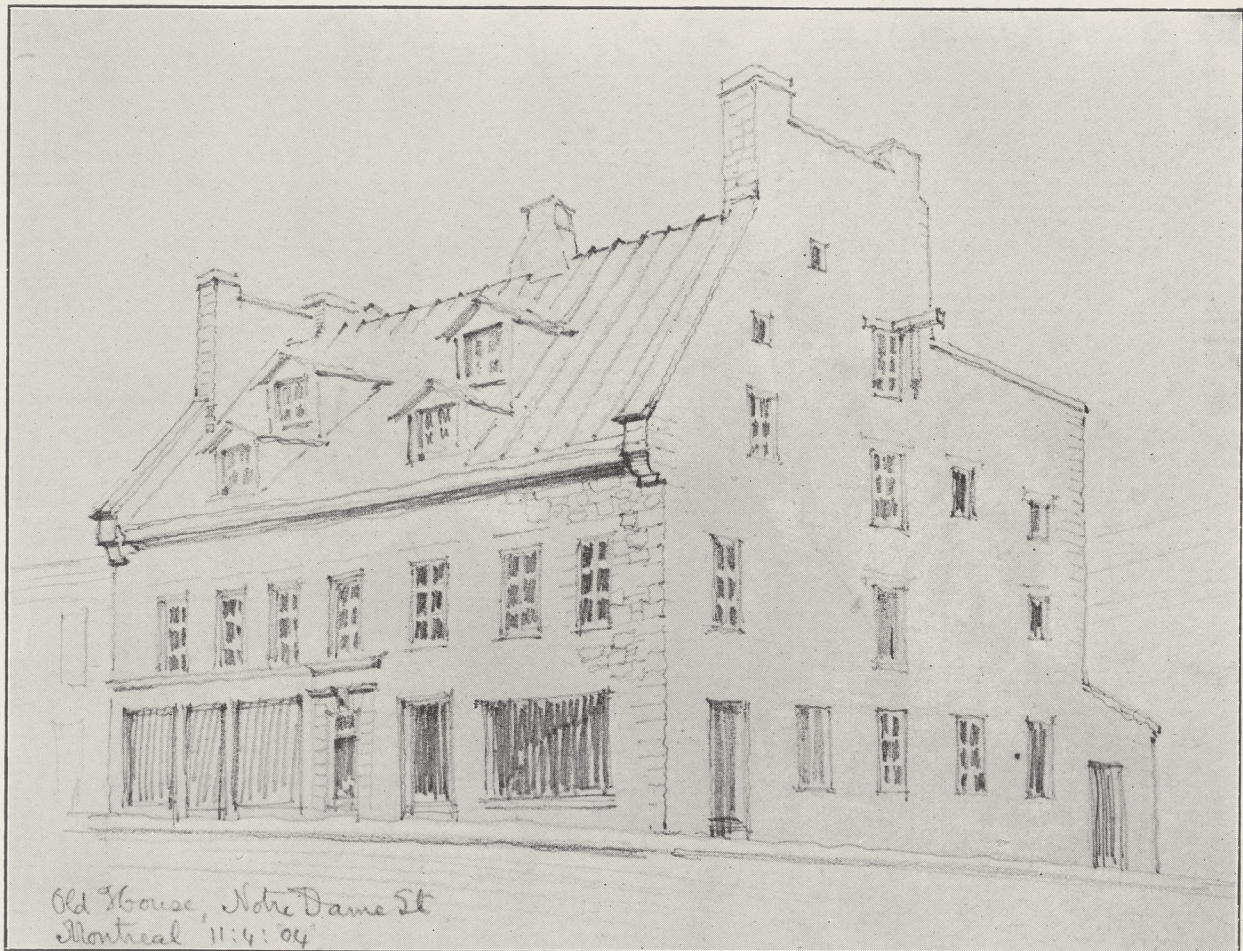
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SKETCHES OF OLD BUILDINGS IN MONTREAL.
By "GARGOYLE" AND MR. CECIL BURGESS.



SKETCHES OF OLD BUILDINGS IN MONTREAL.

By "GARGOYLE" AND MR. CECIL W. BURGESS.



DURHAM CASTLE STAIRCASE.



COMPETITIVE DESIGN FOR GOLF CLUB HOUSE.

GEO. W. GOUINLOCK, ARCHITECT.

ANCIENT LIGHTS.

The House of Lords has delivered an important judgment, on the question of ancient lights, which definitely settles the basis of equitable adjustment of the opposing interests, in this respect, of the owners of old buildings, and the promoters of new ones; not only in England but throughout the Empire, where the House of Lords is the final Court of Appeal.

The case was one of injury done to a tenement on one side of a street by adding to the height of the tenement opposite. The complaint was that a room on the ground floor of the complainant's (or plaintiff's) tenement was perceptibly darkened by the height added to the tenement of the defendant.

The darkening was a matter of fact which does not appear to have been disputable. On the other hand there were qualifying circumstances which excite sympathy with the defendant:—That the room which was darkened ran through to the back of the building and had no window at the back; so that it was dark in any case, and for many purposes would have always required artificial light at the back:—that the defendant's building, even when added to, was lower than that of the plaintiff. These circumstances, which to an ordinary onlooker seem to exhibit the plaintiff rather than the defendant as the oppressor, serve to show as the case, before coming to the Lords, had gone against the defendant in the Court of Appeal—how decidedly the Statute has been interpreted on the side of the non-disturbance of existing rights.

The Statute, commonly called the Prescription Act, gave a prescriptive right to light which had been enjoyed for a period of 20 years. The interpretation put upon this by the Courts has apparently been, that, if a building has received a certain amount of light for 20 years, the owner is entitled to claim that same amount of light for ever. According to the Times, this stiff interpretation has given rise to an attitude on the part of building owners that has grown from the merely self-defensive to the extortionate. The moment a building is pulled down, to make way for a larger one, the neighbouring owners placard their windows as "ancient lights"; in most cases with no other intention than to extort payment under threat of a lawsuit. They no doubt believe that they have a proprietary right to their light, which must be bought if it is to be interfered with. The effect, at any rate, has been an embarrassment of building improvement about which there has been much complaint by architects.

The history of the present case was that in its first trial (Dec. 20, 1900) the Judge found that the action failed because the plaintiff's premises would still, in his opinion, "be well and sufficiently lighted for all ordinary purposes of occupancy as a place of business." The Court of Appeal, (Dec. 20, 1901) reversed this decision on the ground that, according to the law of England, the owner of the ancient light is entitled to the whole amount of light which has ever reached his windows. The appeal was twice argued before the House of Lords—in May and in December of 1903, judgment was delivered on May 2 last.

The Lord Chancellor pointed out, in his judgment that, if the principle laid down by the Court of Appeal were to be applied consistently, towns would not grow; because any dweller on the edge of a town, who had for 20 years enjoyed free access of air without

buildings near him, would be in a position to restrain any interruption of this enjoyment by the extension of buildings beyond him. Indeed under this principle, no vacant piece of ground could be built on in the city; and the rights of people to utilize their own land would be formidably restricted. The right of access to light not being a proprietary right in the light itself but only a right to its enjoyment which is common to all, he concludes that the test of the right is whether the obstruction complained of is a nuisance. That is to say, a dweller in towns cannot expect to enjoy absolute daylight any more than he enjoys as pure air, as much freedom from smoke and smell, or as little disturbance from noise, as if he lived in the country; yet as an excess of smoke, smell or noise may give a cause of action so it is in the question of deprivation of light—the question is one of degree. And the test of right must further have some elasticity that it may fit the surroundings and circumstances of each case, since these affect the amount of light required.

The Lord Chancellor having thus, by the investigation of elementary principles, endeavoured to get over what he calls "the danger of attempting to put a principle of law into the iron framework of a statute," the four other judges gave judgments to the same effect, with such further considerations as show the conclusion of the whole matter to be that a 20 year user of light acquires no prescriptive right beyond such consideration as one would think would be given by common law without the intervention of a statute; for the owner of a building of any age is declared to have no more than an equal right with the owner of the newest building near him to an amount of light, "sufficient according to the ordinary notions of mankind, for the comfortable use and enjoyment of that house as a dwelling house, or for the beneficial use and occupation of the house if it were warehouse, shop or other place of business." The owner of a new building, built on a lot previously vacant can of course only get a share of what light is going, but he is entitled to that; and nobody else seems to be entitled to any more. If there is less light going after the advent of the new building, the owner of a 20 years old building opposite must be content with the change so long as his building "retains its substantial identity." It seems therefore that an exceptional need for light in an old building cannot claim full consideration. This would be to uphold the right to an average MAXIMUM of the light that had been shed on the windows in the past; and this view, which was that of the Court of Appeal, the Lords reject. It is unfortunate for definiteness of decision in the matter that Lord Davey, who alone considers this aspect of the question in a concrete way, gives, in illustration, suppositional cases of one class only, viz., of premises converted from a purpose requiring less light to one requiring more; and he says that a man, in thus calling upon his neighbor to leave him a supply of light which is rendered necessary only by such alterations, imposes an increased burden upon his neighbor, which no man can do by any act of his own. This seems to limit indefensible claims for extraordinary amount of light to those which are made on behalf of a building which has altered its substantial identity so as to require more light. But he can hardly intend this limitation for he introduces his illustrations in the middle of an argument which, accepting

what he says "is agreed on all hands", that a man does not lose or restrict his right to light by not using the full measure of light that the law permits, asks:—"If the actual user is not the test where the use falls below the standard of what may reasonably be required for the ordinary uses of inhabitancy and business, why (it may be asked) should it be made a test where the use has been of a special or extraordinary character in excess of that standard." And he concludes that the only test of right is a fair standard which, under the title of a "supposed standard," is more than once alluded to in these judgments as having been objected to in a former case by one of the judges of the Court of Appeal whose decision in this case these judgements reverse. Lord Davey's final statement seems to be definite enough:—"I am of opinion," he sums up, "that the owner or occupier of the dominant tenement is entitled to the uninterrupted access through his ancient windows of a quantity of light, the measure of which is what is required for the ordinary purposes of inhabitancy or business of the tenement according to the ordinary notions of mankind, and that the question for what purpose he has thought fit to use that light, or the mode in which he finds it convenient to arrange the internal structure of his tenement does not affect the question. The actual user will neither increase nor diminish the right. The single question in these cases is still what it was in the days of Lord Hardwicke and Lord Eldon (whose decisions were given before the Prescription Act), "whether the obstruction complained of is a nuisance. I do not myself think that this rule is difficult of application in practice." In support of this latter statement which, as applicable everywhere, may perhaps be thought a strong one, his lordship adds:—"The experience of surveyors who are practically conversant with this matter is entitled to great respect;" and also:—"The rule of 45 degrees is not, of course, a rule of law, and is not applicable in every case. But I agree with Lord Selbourne, 'City of London Brewery Company v. Tennant,' that it may properly be used as PRIMA FACIE evidence."

W. A. LANGTON.

MOISTURE IN WOOD.

According to M. Deploy, green wood when cut down contains about 45 per cent. of its weight of moisture. In the forests of Central Europe wood cut down in the winter holds at the end of the following summer more than 40 per cent. of water. Wood kept for several years in a dry place retains from 15 to 20 per cent. of water. Wood that has been thoroughly desiccated will, when exposed to air under ordinary circumstances, absorb 5 per cent. of water in the first three days, and will continue to absorb it until it reaches from 14 to 16 per cent. as a normal standard. The amount fluctuates above and below this standard, according to the state of the atmosphere. M. V olette found that by exposing green wood to a temperature of 212 deg. Fahr. it lost 45 per cent. of its weight, which accords with observations of M. Deploy. He further found that by exposing small prisms of wood $\frac{1}{2}$ in. square and 8 in. long, cut out of billets that had been stored for two years to the action of superheated steam for two hours, they lost from 15 to 45 per cent. of their weight, according to the temperature of the steam which varied from 275 deg. Fahr. to 437 deg. Fahr. (125 deg. Centigrade to 225 deg. Centigrade).

NEW BUILDING REGULATIONS FOR TORONTO.

The City Council of Toronto will shortly take up consideration of a new set of regulations to govern the construction of buildings in that city. Meanwhile at the request of the City Architect, the Council have authorized the following amendments to the existing regulations, in order that the replacing of buildings destroyed by the recent fire may be proceeded with:—

Section 46 of the said By-law is repealed and the following inserted in lieu thereof:

"46. No building shall be erected or placed on old or new foundations, or on foundations partly new and partly old, unless the same shall be built with main walls of the thickness called for in the following tables, said walls to also comply with the other conditions as to heights and openings as hereafter specified.

WALLS FOR BUILDINGS USED AS A DWELLING HOUSE, APARTMENT HOUSE, TENEMENT HOUSE OR LODGING HOUSE.

Number of Storeys	THICKNESS OF WALLS IN INCHES.											
	Founda- tion Walls.		Ground Floor.	First Floor.	Second Floor.	Third Floor.	Fourth Floor.	Fifth Floor.	Sixth Floor.	Seventh Floor.	Eighth Floor.	Ninth Floor.
	Stone.	Brick.										
One storey	in. 16	in. 14	in. 9									
Two “	16	14	9	9								
Three “	20	18	14	14	9							
Four “	22	18	18	14	14	9						
Five “	24	22	18	18	14	14	9					
Six “	27	22	18	18	18	14	14	9				
Seven “	30	27	22	18	18	18	14	14	9			
Eight “	30	27	22	22	18	18	18	14	14	9		
Nine “	33	31	27	22	22	18	18	18	14	14	9	
Ten “	36	31	27	22	22	22	18	18	18	14	14	9

WALLS FOR BUILDINGS USED AS HOTELS, OFFICE BUILDINGS, WAREHOUSES, FACTORY BUILDINGS AND PUBLIC BUILDINGS.

	Founda- tion Walls.		Ground Floor.	First Floor.	Second Floor.	Third Floor.	Fourth Floor.	Fifth Floor.	Sixth Floor.	Seventh Floor.	Eighth Floor.	Ninth Floor.
	Stone.	Brick.										
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
One storey	18	14	14									
Two "	20	18	14	14								
Three "	22	18	18	14	14							
Four "	24	22	18	18	14	14						
Five "	27	22	22	18	18	14	14					
Six "	30	27	22	22	18	18	14	14				
Seven "	33	31	27	22	22	18	18	14	14			
Eight "	35	31	27	27	22	22	18	18	14	14		
Nine "	38	36	31	27	27	22	22	18	18	14	14	
Ten "	40	36	31	27	27	27	22	22	18	18	14	14

In the foregoing tables of thicknesses of walls the perpendicular distance from the top of joists in one storey to the corresponding point in the next storey is to be understood to mean not more than 12 feet in the basement or cellar, 19 feet for the ground floor, 16 feet for the first storey, and 15 feet each for all storeys above the first, except the top storey, which may have an additional five feet in height at the highest point. If any storey exceeds these respective heights the walls of such storey and all the storeys below the same shall be increased one-half brick, or about four and one-half inches more than the thickness given in the tables, and if basement or cellar walls exceed twelve feet in height they shall, if built with stone, be increased six inches in thickness, and if of brick four and one-half inches in thickness for every additional ten feet or part thereof, in excess of twelve feet.

All cellar or basement walls built of stone or brick shall be laid in cement mortar. If solid buttresses or iron or steel pillars not over 18 feet between centres, with sufficient strength to

carry trusses or girders, are used, then the thickness of the walls may be reduced one-half brick, or about $4\frac{1}{2}$ inches, provided, however, that no brick walls shall be less than fourteen inches in thickness in any hotel, office building, warehouse, factory or public building.

The thickness of walls specified herein and set forth in the tables for the various buildings are intended to apply to all exterior enclosing walls, and all such interior walls as may be required for the support of floors and roofs.

An increase of one-half brick or about $4\frac{1}{2}$ inches in the thickness of walls shall be made in all cases where the walls support trussed roofs, and are over seventy-five feet long, and where walls for warehouses and factory buildings are over one hundred and fifty feet long, without masonry cross walls of equal height.

All non-bearing walls of buildings may be four and one-half inches less in thickness than called for in the tables, provided, however, that none are less than nine inches or one brick thick.

The outside walls, if of brick work, of all public halls, theatres, opera houses or other buildings in which the roofs or ceilings are carried on trusses or girders of a span of fifty feet or more, shall not be of less thickness from the bottom of the first or ground floor joists at the lowest point in the main auditorium to the underside of the trusses or girders than the following:

(1) If the walls are over twelve and not over twenty-five feet high, they are to be not less than eighteen inches thick.

(2) If more than twenty-five feet high and not more than fifty feet high, they are to be not less than twenty-two inches thick for the first twenty-five feet, and eighteen inches thick for the remainder of the height.

(3) If more than fifty feet high and not more than seventy-five feet high, they shall be not less than twenty-seven inches thick for the first twenty-five feet in height, twenty-two inches thick for the second twenty-five feet, and eighteen inches thick for the remainder of the height. For any increase in height over seventy-five feet, the thickness of walls shall be increased in the above ratio. An increase of four and one-half inches in thickness of wall shall be made in all cases where walls are over one hundred feet long without cross walls of equal height.

(4) In case there shall be one or more storeys built above a public hall, theatre, or opera house, such storeys being carried on trusses or girders, the thickness of walls shall be increased by four and one-half inches, or one-half brick for each two storeys or part thereof above every such room.

(5) If solid masonry buttresses are employed and placed sixteen feet or less apart, and extended to the foot of the trusses or girders, carrying the ceiling and roof, or if iron or steel pillar are inserted in such walls for the support of the superstructure, and at distances not more than eighteen feet between centres, such pillars extending to and carrying the super-imposed trusses and girders, the thickness of such walls may be reduced in proportion to the increase or strength afforded by such buttresses or pillars; but in no case shall any such wall be less than fourteen inches thick in the top storey, four and one-half inches or one-half brick being added going downward for each storeys or for each gallery, or for each twenty-five feet in height of blank wall. If iron or steel pillars are introduced in said walls, the brick work around the same shall be bonded into that of the connecting walls, and each of such pillars shall have not less than nine inches of brick wall around it, the brick being measured from the extreme outer dimension of such iron or steel pillars.

(6) If a public hall, theatre, or opera house is of skeleton construction, and the steel framework carries the entire super-imposed load of floors, roof and walls, then the enclosing walls shall consist of fourteen inches of solid brick work, with two inches of hollow tile, or four inches of hollow brick on the inside, properly bonded together, the balance of the structural parts to be protected against the effects of fire.

All walls given in the tables shall be increased in thickness or be reinforced with equivalent pilasters or buttresses when the following are the conditions:

When walls are more than twenty-five feet apart, one-half brick shall be added for every succeeding interval of twelve and one-half feet, or part thereof, of distance between them without intermediate division walls or rows of column and girder supports.

When any horizontal section of walls shows more than twenty-five per cent. reduction of area on account of flues, openings or recesses, one-half brick shall be added for every suc-

ceeding interval of ten per cent. or part thereof reduction, provided that in walls of uniform thicknesses such reduction does not exceed fifty-five per cent. of the whole, or in masonry pier construction not more than seventy per cent. for each bay.

Wherever walls less than eighteen inches in thickness are utilized for the support of ordinary joists in buildings used for the sale, storage, or manufacture of merchandise, or public livery, boarding or in sale stables ledges four inches wide shall be corbelled out in not less than four courses, of brick for the support of such joists, and in buildings of all classes where furring strips, whether combustible or incombustible, are used on bricks walls, there shall be ledges equal to the thickness of such furring strips upon such walls, and in all cases where such ledges are built, they are to be commenced at the bottom of the joists, and are to be carried up to and levelled off at a line at least one inch above the top of the joists.

All wooden joists, beams or other timbers in the party wall of every building built of stone or brick or other incombustible material, shall be separated from the joist beam or timber entering the opposite side of the wall by at least four inches of mason work.

TIMBER IN WALLS PROHIBITED.

No timber except inside lintels, as hereinafter provided, brace-blocks, or wood brick, not more than nine inches in length, shall be used in any wall of any building where stone, brick or iron is commonly used. And the roofing in Limit "A" shall be of incombustible material. All brick walls shall be carried up on the construction aforesaid to the underside of the roof boards, whether front, rear, party or gable walls; and all gable or parapet walls surmounting roofs of mercantile buildings shall be at least one brick and a half, or fourteen inches in thickness, and shall be carried to the full height of three feet above the roof, on a square line therewith. All the exterior walls of sheds abutting on lanes or passages other than streets shall be constructed of brick or stone, not less than nine inches in thickness.

V

Section 69 of the said By-law is hereby repealed, and the following inserted in lieu thereof:

"69. All buildings erected in terraces or rows must have one brick party wall to at least every thirty feet in length of frontage, and such party walls must be equal in thickness to that required for outer walls, and be carried eighteen inches above the roof, as before mentioned. The party walls in all semi-detached houses must be carried up close and flush to the roof boards to divide each separate tenement, and to go through the roof to every second tenement, with parapet walls."

PERSONAL

Mr. J. W. Siddall, architect, left Toronto recently for a visit to Europe.

Mr. Brydgeman, architect, late of New York, has recently opened an office in the Canada Life Building, Winnipeg.

Mr. Robert Wilson, formerly a well known Toronto contractor, is now local manager at Winnipeg for Mr. H. C. Stone, architect, and is also superintending the construction of the new Union Bank Building in that city for Messrs. Darling, Pearson & Over.

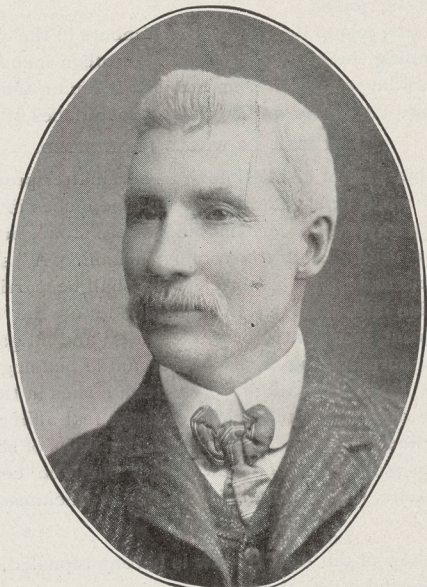
Spruatt, Rolph & Chrysler, architects, have established an office in the Thompson block, Main St. Winnipeg, in charge of Mr. Chrysler. The firm have prepared plans for alterations and additions to the Commercial Club, and have also on hand a considerable amount of other work.

Mr. George Browne, one of the pioneer architects of Winnipeg, is about to retire from practice and take up his residence on the Hudson, about twenty-five miles from New York City. Mr. Browne has been a resident of Winnipeg since 1878, and has designed and superintended the erection of many of the important buildings of that city. His removal is very much regretted.

The Galt Art Metal Company, Limited, is a new concern which has recently started business in Galt, Ont., for the purpose of manufacturing architectural sheet metal material. The directors of the company are prominent business men of Galt, the manager being Mr. J. H. Hayhurst who was for a number of years manager of the James Warnock Company, Limited, and who, on severing his connection with that Company, was made the recipient of a gold headed cane by the employees.

WINNIPEG BUILDERS' EXCHANGE.

At various times during the last fifteen years organization has been attempted by contractors in the building trades at Winnipeg, but none of these was ultimately successful. The Winnipeg Builders' Exchange, organized last month, is founded on a broader basis, and we believe is destined to endure, and to serve a useful and important purpose. The Exchange has already a membership of nearly one hundred of the leading contractors and supply firms in all lines. Convenient and commodious quarters have been secured in the Rialto Block, 482½ Main St., where a number of important



MR. E. CASS,
President Winnipeg Builders' Exchange.

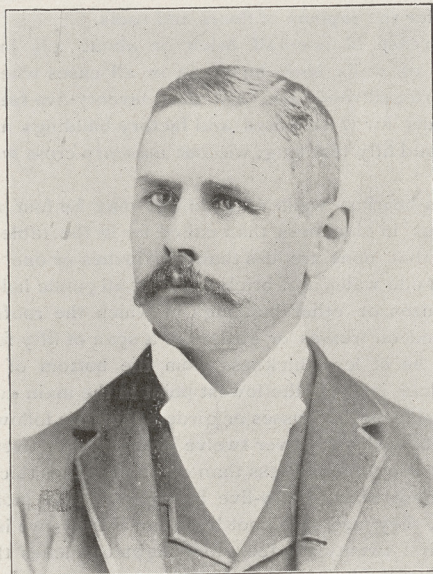
meetings have already been held. The success of an organization of this kind depends very largely upon the Secretary. In Mr. W. W. Daly the Exchange have secured a most painstaking, obliging and efficient officer, who may be depended upon to do everything possible for the success of the organization. The other officers, directors and members of the Committees are



MR. G. W. MURRAY,
1st Vice-President Winnipeg Builders' Exchange.

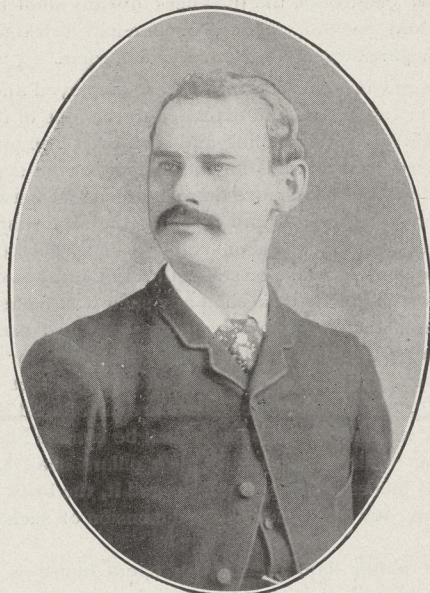
as follows:—President, E. Cass; First Vice-President, G. W. Murray; Second Vice-President, Joseph Bourgeault; Treasurer, T. D. Robinson; Sergeant-at-Arms, Alexander Irwin. Directors, E. S. Harrison, Angus Browne, W. A. Irish, D. Cameron, John Douglas, J.

W. Morley, Thomas Cotter, J. A. Girvin, R. Watson, Victor Bouche, William Alsip, and C. H. Simpson. Legislative Committee, Mayor Sharpe, Chairman; William Garson, T. D. Robinson, William Irish and Wm. McFarlane. Finance Committee, A. T. Davidson, Chairman; Duncan Sinclair and Angus Browne.



MR. JOS. BOURGEAULT,
2nd Vice-President Winnipeg Builders' Exchange.

Resolution Committee, A. J. Hammond, Chairman; C. N. Sharp, W. H. Fraser, W. Malcolm and A. N. McCutcheon. Membership Committee, Philip Burnett, Chairman; A. B. Anderson, W. Wilson, J. W. Wright and William Hanbury. Labor and Grievance Committee, George Mitchell, Chairman; F. Powell, C. Gate, A. J. McMartin, C. A. Bell, S. B. Ritchie, John



MR. W. W. DALY,
Secretary Winnipeg Builders' Exchange.

Douglas and J. H. Neil. We have the privilege of presenting herewith the portraits of the chief Executive Officers of the Exchange.

The objects of the Winnipeg Builders' Exchange, as set forth in the Constitution, are as follows:—1. To join in one Association all contractors, manufacturers and dealers of good repute doing business in the city aforesaid, whose vocation connects them, wholly or generally, with the industry of building, either as employing contractors in any branch of the building business or as manufacturers of or dealers in material

used and employed in the erection of buildings or other structures, and who are not members of any Journey-men's Trade or Labor Union.

2. To establish and maintain among the individuals so associated a just and equitable system of dealing, and a uniformity in commercial usages by rules and



IVEY BUILDING.—H. C. McBRIDE, ARCHITECT.

regulations; to acquire, preserve and disseminate valuable information regarding the business in which they are severally engaged.

3. To procure (either by lease or purchase), furnish and maintain suitable rooms for the use of its members for meeting rooms, offices and other purposes.

4. To establish and maintain a system of adjustment of all disputes or controversies which may arise between its members or between its members and their employees and other persons, and for that purpose to act in concert with similar organizations.

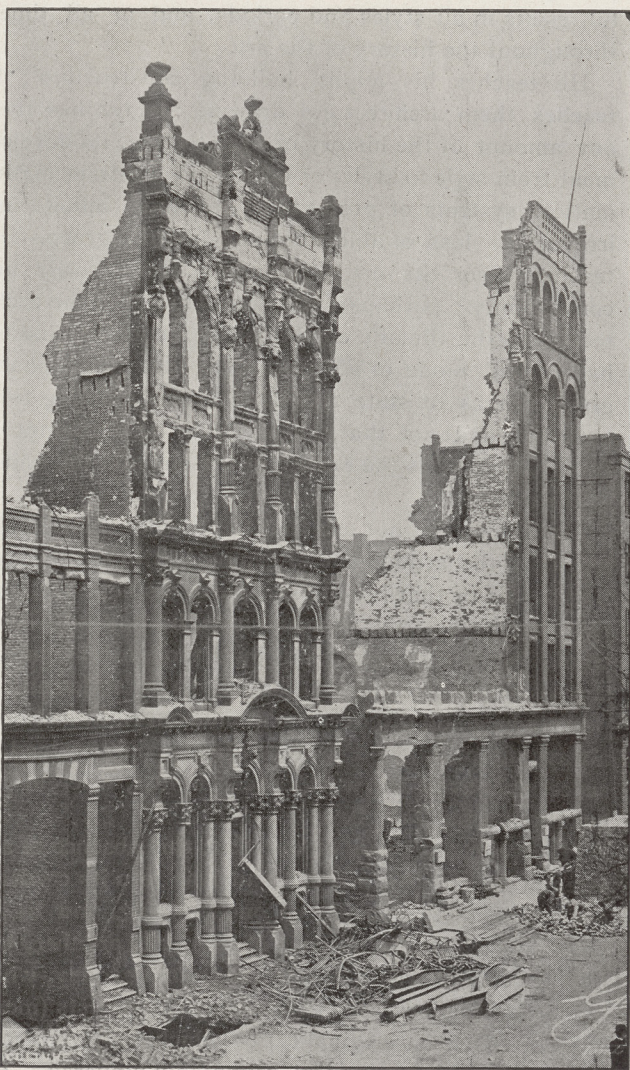
One of the first subjects brought before the Exchange for its consideration was that of a uniform contract drawn up with a view of securing justice and fairness to all the contracting parties. In Winnipeg, as elsewhere, the want of such a form of contract has been keenly felt. In its absence, contractors have been obliged to consult and pay for the services of a lawyer to examine every contract which they were called upon to sign. Frequent objection was made by the lawyers to the terms and conditions of the contract, causing trouble and delay. It is the hope of the Builders' Exchange that a form of contract may be adopted which will be satisfactory alike to architects, owners and

contractors, and which will do away with the difficulties which have been experienced in the past. As a united body the Exchange will also be in a position to deal with other difficulties such as inadequate transportation, delayed cars and unfair and excessive demurrage charges, labor troubles, etc. The Exchange will furnish a list of its members with their names and addresses to the architects of the city, and request will be made of the architects to furnish the Exchange with a copy of all plans and specifications for its members only. It is expected and hoped that next winter lectures and papers on subjects of interest to the members may be obtained and presented at the meetings.

Taken altogether the Winnipeg Builders' Exchange will be, as in other large and growing cities, a source of great benefit to all identified with the various building interests, and if loyally supported by the members will become, as elsewhere, indispensable.

THE TORONTO FIRE.

The accompanying photographs illustrate the class of buildings that met their fate in the recent conflagration.



EFFECT OF THE FIRE ON WAREHOUSES IMMEDIATELY EAST OF THE IVEY BUILDING.

Part of a Copyrighted Photograph by Galbraith Photo Co.

Some idea of the intense heat can be had when stone fronts like this are fairly melted.

The Ivey building was saved only on account of the fire wall at the side. It is one of Toronto's modern warehouses—the front above the ground floor windows being built of New York pressed brick and trimmed with Roman Stone which is in itself a fireproof material.

WHAT CONSTITUTES BEAUTY IN ARCHITECTURE.*

BY BARRY PARKER.

Mr. Barry Parker recently delivered a lecture (in two parts) at the Glasgow Exhibition before the International Association for the Advancement of Science, Arts and Education, under the main title of "Wherein Beauty in Architecture lies," and the sub-title of "Placing of Light and Shade, Detail, Masses and Ornament."

Mr. Parker said that he had been led to the choice of this subject by a feeling which had grown upon him more and more, year by year, that those interested in the development of the knowledge and perception of truth in art do, in their attempts to help one another, almost invariably miss what is perhaps most important. Anyone setting out to help others to a knowledge of architecture, whether it be to train students with a view to their practising it as a profession or with the aim of guiding others to some understanding of what they see, always approaches his subject from some point of view other than that of trying to show them some main principles or guiding instincts which have led to beautiful results in all styles and periods, and at all times, throughout the history of the art.

He teaches his pupils building construction; he teaches them architectural drawing; he teaches them any amount of the history of architecture, its development from style to style; or even some abstract mathematical systems of proportions, to their infinite and irrevocable loss of ability for any broader grasp. He teaches them the art of planning economically and conveniently; perhaps even the adaption of the architecture to the climatic conditions of a country, and the habits and mode of life of a race. He will probably go so far as to state that he feels this building to be beautiful and not that, but does he ever attempt to teach wherein lies the beauty of the one and the failure of the other?

Mr. Parker did not ask that the teacher should point out why the attainment of beauty lies in the recognition of this or that broad principle or æsthetic instinct; that would, he said, in most cases, be beyond what it would be fair to ask. But by a thoughtful comparison of many buildings belonging to all styles and all periods he could discover and points out right instincts, always followed, and factors always duly valued in successful work the world over—in fact, wherein the beauty of a building lies.

He went on to point out that this absence of any attempt to create a power to analyse into its constituent elements the beauty of one building, and to see what has led to the absence of beauty in another, was another characteristic of our art training today, which made for the increase of that army of copyists (incapable of the least originality) by which the progress of the art of architecture is so lamentably hindered. For he who has merely seen that one building is beautiful and another not, and has never approached either with any attempt to discover the qualities making for success or failure, will have no idea of doing anything more than reproducing what he has seen to be beautiful as slavishly as the new conditions in which he is placing it will admit. He will have no power to see that he commands the qualities which have made for success.

By means of a sketch of a window in Florence he had recently made for this purpose, and a photograph of a pulpit in Milan, and another of the Duomo in Florence, he showed how rightly to meet the differences in ornament demanded by considerations of distance from the spectator; how only vulgarity resulted from simple magnifying ornament because it was to be seen from a distance, and only irritation in the beholder by so designing that it could not be properly seen; how a truly happy result could only be got by designing ornament which was to be seen from a distance, simple but refined in detail, avoiding above all things multiplicity of different forms, that it may be easily grasped from a distance and satisfactory on close inspection.

Not the least interesting part of these lectures was that treating of the province of design in bringing into harmony the works of nature to the works of man; the province of design in introducing growing forms among architectural forms, and architectural forms among those of wild nature; the due fusing of the one into the other, and the softening of the abrupt contrast by frankly acknowledged art.

Finally, among the main principles in design which Mr. Barry Parker laid down as forming as it were the framework, he laid great stress on the following: "Everything anyone is called upon to design has certain clearly defined requirements, purposes and conditions, and the form must be given it which will best enable it to fulfil these before any other considerations may be entered upon. It is doomed to certain artistic failure if, from mistaken notions of the distates of æsthetics, it is given a form which will make it less able to perform its functions than would some other form; and the ability and inability of the designer is shown in the degree he makes it satisfactory to our æsthetic instincts, while at the same time he enables it to perform its functions as perfectly as possible." He also emphasised that its form must at the same time be one which revealed and explained the construction; not one which attempted to conceal it.

From his want of power to analyse the beauty of his model into its constituent elements he would be certain so to adapt it to its new conditions as to destroy that beauty. Mr. Parker showed on the screen photographs and sketches of many European buildings, pointing out how the disposition and placing of the main masses of light and shade must take precedence of all other questions if beauty, and not entire loss of dignity is to result. He demonstrated the truth of this by showing various examples of buildings where there was no massing of light and shade; the light was all broken up, and the shade was all broken up and spread in little patches and strips universally over the whole building. He went on to show that to gain beauty it was necessary there should be not merely restraint in the use of detail, and a sense of fitness in the parts selected to be finely detailed, but the right perception of the way in which the detail should be concentrated or grouped. "No truly happy effect ever was or ever can be produced where small and great are disposed universally over the whole surface of a building, and where no thought is given to the enhancing of the light parts and details by opposing them to the massive, the broad and the simple, where all parts are equally enriched, whether greatly or slightly, with mouldings,

*Abstract of a lecture recently delivered before the International Association for the Advancement of Science, Arts and Education. Reprinted from *The Builders' Journal*.

ornament, colouring, or in any other way, as is the case with so many modern buildings in which all enrichment is spread, profusely or sparsely as funds allow, equally over the whole facade."

He deplored the loss of power to rightly value plain surfaces, and showed by means of the lantern how much of the beauty of the work of the past resulted from due appreciation of these.

THE LIGHTING OF A HOUSE AND ITS EFFECT UPON THE DECORATIONS.

A good part of the usefulness of a house comes at night; it is then that we most generally throw open our house, so the problem of artificial lighting becomes a very important one. Many houses are ruined by bad lights. You can furnish a room ever so elaborately and make it seem quite bare by having a blaze of lights in the wrong place; you can seat your guest ever so comfortably, and make his visit a torture by having a glare directly in his eyes; and you can furnish your room ever so coolly for summer, and then heat it to the boiling point by ill-advised attempts to illuminate.

Fortunately, as it happens, one simple rule rigidly adhered to will bring you safely out of any difficulty.

The light should never shine directly in anyone's eyes. There is, perhaps, only one exception to this rule. At one's dressing table the lights are rightly left bare, for that is the place where one wants to see quite plainly, and where anything cutting off the light would be a hindrance.

Comfort absolutely demands the shaded light, and so does decorative beauty. A mild, soft light is always to be preferred to a glaring white light; and the shades of the lights are really the easiest way of successfully introducing colour into your scheme of decoration. It is possible to have various colours, but perhaps the best effect is obtained by having all the lights in a room the same colour. A drawing room with all the lights in pink may be made a delightful spot in which women look their best. Red and yellow are good colours, and increase the rich and mellow look of the room in which they are used. A library papered in green, with white woodwork, looks peculiarly restful and studious, with the somewhat old-fashioned white-lined green shades on the reading lamps.

Blue and most greens are to be avoided as giving the room and the people in it a ghastly look. The whole effect of a room can be changed by the colour which lights it.

As to the decorative difference between high and low lighting, anyone who has ever lived in a sparsely furnished room can bear witness. Light a ring of gas jets up near the ceiling, and the whole room looks barren. The ceiling itself becomes the most prominent feature of the room, and its bare expanse dominates the whole apartment. Put your lights down a little lower, and let the lights fall on your rugs and what furniture you have; let a slight dimness in the farthest corners distract too much attention from them, and you will find the room which was formerly barren will take on a comfortable, snug look.

The same rule applies to rooms which are furnished to their fullest capacity; the ceiling is not the feature to be emphasized, and high and unprotected lights are sure to bring about this result. Of course, to this rule there are exceptions. For example, suppose you

are wanting to light a ballroom, the ceiling of which is so high that lights up there are safely out of the range of the eyes. The effect of spaciousness is what you want; the room is to be filled with people, and a clear general view must be possible. In such a case the hard brilliancy of uncovered lights is exactly what is needed.

And for those who can employ electricity there is also a possible lighting from the ceiling. A very successfully lit dining-room in New York has a rich coffered ceiling. In the squares between the cross-beams have been placed four flattened hemispheres of pinkish opalescent glass. Behind these and next the ceiling are electric lights, which diffuse a soft pinkish light all through the room. They are not called upon to do all the illuminating, for around the side walls incandescent lights with pink shades and on the tables candles, similarly protected, furnish light. The effect of the lights on the ceiling is very good. The ceiling itself is rich enough to stand illumination, and high enough to bring the lights out of the immediate range of the eye. But the scheme is rather elaborate, and for the simpler type of house out of the question.

There is very little to be said for the ordinary chandelier, depending from the ceiling's centre. In a hall, where it usually assumes the form of a hanging lantern, it is perhaps at its best. In other rooms it had best be removed. If this cannot be done, at least light all jets and turn them very low, rather than have a flaring jet at one side, while the rest of the chandelier is in hideous uselessness.

ARCHITECTS' FEES.

The American Institute of Architects has lately revised its schedule of minimum fees for professional practice. These are now substantially as follows:—

For preliminary studies, working drawings, specifications, large scale and full size details, and the general supervision of the work, the minimum charge is 5 per cent. on the cost of the work. By supervision is meant such inspection by himself or his deputy of work in studios, shops and on the building site, as he finds necessary to ascertain whether his drawings, specifications and directions are being carried out. If the constant presence of a superintendent is necessary, the owner is to pay the cost. For new buildings costing less than \$10,000, and for furniture, monuments, decorations and cabinet work the charge is to be 10 per cent. "None of these charges covers alterations and additions to contracts, drawings and specifications nor professional or legal services incidental to negotiations for site, disputed party walls, right of light, measurement of work or failure of contractors; when such services become necessary, they shall be charged for according to the time and trouble involved." When heating, ventilating, mechanical, electrical and sanitary problems in a building are of such a nature as to require the assistance of a specialist, the owner is to pay for such assistance. The fees are to be paid in the following order: On completion of the preliminary sketches, one-fifth of the entire amount; on completion of working drawings and specifications, two-thirds; the remaining two-thirds from time to time.

Only those who have laid a sidewalk can realize the vast difference between work in the abstract and work in the concrete.—Princeton Tiger.

MURAL DECORATION.*

By F. S. CHALLONER

Some one has well said that "all painting should decorate." Decorative painting, strictly so called, however, may be broadly defined as the appropriate filling with graceful lines, subtle or strong, light or dark, masses and harmonious colors, of spaces of various shapes and sizes which are made by the architectural lines of a building. These spaces may be either modelled in low relief or smooth, domed, vaulted or flat. They are sometimes on the ceiling, in the cove and frieze, or around the walls. In every instance they are influenced by their architectural environment. To fill all these panels with great art there are certain qualities other than the best composition, drawing, modelling and technique, that must be present in the work. These qualities which are essentially "mural" are always seen in the best decorative painting, and often are there at the expense of some of the others. One of these mural qualities is harmony. No scheme can be truly decorative unless harmony exists between it and the other parts of the building to which it belongs. To secure this, architect and artist must "pull together," so to speak. Else, though you may have good architecture and good painting, you will have a poor "ensemble." As an illustration, let me quote an article that appeared in Scribner's amongst the Art Notes for April, 1897; dealing with this very aspect of the question, and in connection with the newly decorated Library at Washington. The writer of that article goes on to say: "Many of the mural decorations considered separately are very satisfactory, but considered as a part of a whole they have often failed in conformity and harmony. This has resulted almost entirely from the lack of a systematic plan covering the whole building to be decorated. In place of general supervision there has been individual license. There is variety in it, to be sure, and so there is in a crazy quilt, but what is needed in decoration is not variety but quiescent unity, unostentatious oneness of effect. Some of the pictures not only swear at each other, but at the building generally." Continuing, the writer says: "If our buildings are to be decorated in a proper manner, a scheme of form, light and color, planned and controlled from cellar to roof, by some person or persons, would seem absolutely necessary. The true artist never yet suffered by architectural or decorative restrictions. The axiom of the whole being greater than any of the parts, is as true in art as in mathematics; and the great aim in decoration should be 'ensemble.' An 'omnium gatherum' of wall paintings, however good they may be separately considered, is not decoration."

In order, too, to be in harmony with its setting, a mural painting must, in artists' parlance, "cling to the wall." There should be no attempt to disguise the fact that the painting is on a solid wall and level surface. It must neither seem as though it were modelled in relief nor make a hole in it, but should lie quietly and flatly in its place.

A decoration, therefore, should not be stereo-

scopic, for the moment you introduce depth of atmospheric perspective, and focus an effect in one place only, as is done in picture painting generally, you at once do break through the wall.

A mural decoration, like a tapestry, should tell as a whole from one corner of the subject to the other. It should also be kept as simple as possible, since a lack of simplicity is disturbing and also prevents it being effective when seen from a distance as mural decorations very often are.

Now, simplicity does not mean emptiness, not a bit of it; it does not mean wholesale leaving out, but skilful leaving out.

The attainment of harmony in color is even more difficult in decoration than in other branches of painting. Color is largely governed by lighting, and in decoration every problem is a new one, as far as illumination is concerned.

Thus, pure colors, such as yellows, reds, blues and gold, which produce an admirable effect in the subdued light of some buildings, would look garish indeed in others that are well lighted.

Where artificial light is used it should be kept at a proper distance from the paintings or they will be cancelled; no pigment can fight against either gas or electricity. In this respect I might mention a couple of ceiling paintings which some of you are familiar with; they are in the front dining-rooms, upstairs, at McConkey's; they are about seven by fourteen feet in diameter, and in one of these the artist has represented the "Coming Day," and a Cupid with a torch lights the whole composition. In the centre of that panel a six-branch electrolier has been placed, and as a natural result that torch that the youngster carries does not count for much, it is quite knocked out by the electric lights. Some other form of lighting that room satisfactorily could easily have been devised, it seems to me, had the matter been given more attention by the architect, and the painting would have looked far better. Simplicity of modelling is another factor in decorative harmony—a factor of the greatest importance. Strong Rembrandt-like shadows are entirely unsuited for this class of work.

Of the evolution of mural painting through the ages to what in the fulness of time has become the splendid art with which we are familiar, its suitability as a means of beautifying the home and the place of worship; the mediums used; the choice of appropriate subjects for the various classes of buildings and rooms; the scale upon which these should be executed, and other matters connected with the execution of the work, interesting to architects, might also be touched upon, had I but a little more time. I will, therefore, proceed to take up the aspect of the question as an educational factor in the municipality. In its minor forms it is little more than a mere embellishment, but even then it helps to make life easier and pleasanter, but when it comes to be applied to the decoration of public buildings it should be significant, either symbolical or commemorative, and it has been so in all its best instances. The people of the past—Athens, Florence, Venice and other European cities felt the value of art in this respect.

* Paper read at the annual convention of the Ontario Association of Architects January, 1904.

They believed that certain benefits arose from the cultivation of beauty; that the pleasures of private life, the dignity of public life were increased thereby. It seemed only natural to such cities that the buildings which belonged to all should be the finest of all; consequently it was on the walls and ceilings of these buildings that the native artists were set to work. Go where you will among the great cities of the past and you will find these painted glories still, works which will make these cities famous and splendid for all time. Those cities made the interior of every public building beautiful. Why should not the cities of Canada? History tells us that Athens spent more money upon her art than upon her wars. And this art was the property of all; it belonged to every citizen who had eyes to see; it was "of the people, for the people, by the people." The history of the city was not shut up in libraries; it was made living upon the walls so that the humblest and least educated citizen knew its principal and worthiest events. Every one is more or less impressed through the eyes, especially so are the masses owing to their lack of imagination. "Pictures are the books of the ignorant," said St. Augustine.

To-day, I have been told, the same citizen in Paris walks around the court-yard of the Invalides, and easily gets the battles of the Republic by heart. At the Pantheon he is taught who civilized his country and who fought for it; he sees Charlemagne as civilizer, St. Louis as law giver, Jeanne d'Arc as liberator, and St. Genevieve as its patron saint. It is the same with the other civic buildings; they are all either decorated or being decorated and dignified by her leading artists, and so, whichever way he turns, he sees on the walls the figures and the stories of those who have helped him in the past and urged along the chariot of progress. In this way the modern Parisian is taught who are the benefactors of France, and when he next sees it he understands the great inscription in letters of gold upon the pediment of the Pantheon, "A grateful country to its great men."

It is the same in other cities of Europe; they have all followed the example of the people of the past, and if the pictured lessons are good for them such would be good to-day for all of us who have occasion to use our own civic buildings.

In our own municipal buildings, above the inner series of arches of the main entrance, you will see some decorative panels and over them the following words: "Hail pioneers; their names and deeds remembered and forgotten, we honor here." If you look around you won't find many of those famous men nor many of their deeds upon those walls. At present, barring the stained glass window, and the portraits, the place is but a whitened sepulchre. This should not be, for what Athens, Rome, Florence and Venice have done in the past, New York, Boston, Washington, following their example, are still doing in the present; Montreal, Toronto, Ottawa, Hamilton, London and Winnipeg, and the other cities

of our fair Dominion may do in the future. If these countries thought it worth while, why not Canada? She has much to celebrate, the settlement of the country, the exploration of its rivers and lakes, the achievement of Confederation, our national industries, and lots besides.

MURAL PAINTINGS AS AN INVESTMENT.

In every country there are those who when anything new is suggested ask, "Will it pay? Is there any money in it? Is there a practical side to this celebration of national, civic, corporate and individual achievement?" Most assuredly there is. There are scores of illustrations to be cited to show that the decorations of public buildings may be of some financial benefit to a city or corporation. Everybody recognizes the immense amount of money which the artistic pre-eminence of Paris brings to her yearly in the hundreds of thousands who go to see, to study to buy. Some day, Toronto will be a great art centre, and tourists will pour into it by the hundreds of thousands too; but not until the municipality spends a little money along those lines, because visitors are attracted to a city largely in proportion to the amount there is to see there, its beauties in the way of monumental buildings and sculpture, its parks; magnificent drives; its museum and art gallery; and also the pictured history of the past that is displayed on the walls of its most important buildings.

In the 16th century one of the Popes, Leo X., I think it was, commissioned Michael Angelo to decorate the ceiling and the end wall of the Sistine Chapel, and to-day, if the money could be collected together, which has gone into copies, photographs, and the books that have been written about those decorations, how many such chapels would not the sum suffice to decorate? The same might be said of the Vatican, that was decorated by Raphael, to see which an army of pilgrims have tramped to Rome for nearly four hundred years.

Coming nearer home I might say that the Richelieu and Ontario Navigation Company had thought it worth while to spend a little money in this way in the decorations of their palatial steamers; some sketches of my own are around these walls; they thought it worth while to spend some money in that direction; as it made those boats that much more attractive. When there was nothing else to see out of the windows people required something to see inside. They have not done by any means all that is possible along those lines, they have but started.

The same might be said of some of the theatre companies, some of which have spent a little money in mural decorations, notably the Russell Theatre at Ottawa. Between acts, when the curtain is down, people get tired looking at each other—I suppose so any way—and long for something to rest their eyes on that will have a nice restful feeling in contrast to the movements on the stage. The restaurants also find it pays; you will often find quite elaborate decorations in palatial restaurants.

As for the decorative possibilities of our im-

portant public buildings, they are boundless. Surely no one needs to be told what opportunities are afforded by a great library—such as we are going to have some day, what evolution of civilization by intellectual development may be unrolled upon its walls; what celebration of every sort of literary knowledge from the scrawl of one of our savages upon bark, to the letters of Cadmus, and on to the printing press and modern book. No one for an instant doubts the possibilities of a court house, where all the attributes would show to all onlookers, the wisdom, justice and power of the law; the judgment, moderation, fortitude, clemency that govern the deliberations of a court. In banks, the history of money as a medium may find its legitimate expression; from the earliest barter of savages to the first coin, and from the first coin to the earliest letters of exchange, and so on, down through all the different developments of the interesting history of exchange. Agriculture from the time of the sharpened stake of Abraham's time down to the latest steam plow or other farm implement, might be treated in our markets.

The postoffice and railway station are somewhat akin to each other and for them I would suggest the history and evolution of transportation with all its variety and picturesqueness. Some of the railway stations in Paris are decorated, the Gar de Lyon is a notable instance; in that station there is a series of panels by good landscape men, forming panels around the buildings, of bits along the different branches of the road; by "bits" I mean those particular features in the landscape that are usually illustrated in the time tables or souvenirs given away by railway companies. Our own Grand Trunk Railway and the C. P. R. are trying to do something along somewhat similar lines, but a little more pictorial; they still cling to their framed picture, which, I think, is a great mistake. Between the waits at stations everyone naturally longs for something to look at; at present there is nothing but the time table and a few photographs of views of different parts of the country; and lithographs and show cards of steamship and other companies. How much better it would be if the architect in planning such a building took into consideration that very fact, and instead of using up quite so much marble around the base left a few agreeable spaces which could be filled with landscapes, views of cities, or the battle fields of the country, if there are any—we have a few—and a number of other features; I am sure the time would pass very much more pleasantly and a great deal faster.

When art was at its highest tide the artists' best patrons were the great corporations, the syndicates of the time. To-day, in Canada, there is plenty of room for the celebration by our corporations and industrial companies of our electrical, mining, lumbering, manufacturing, insurance and various other companies, whose history or business possess great decorative opportunities.

I do not think it would be out of place just

here—I might have quoted it earlier—to read a clipping from an American newspaper which deals with Pennsylvania's new state capital. The article states that the State of Pennsylvania has determined to make the new capitol at Harrisburg one of the foremost examples of a building in which the architect, sculptor and mural painter have worked in absolute harmony. To show the magnitude of the opportunities and the liberality of the architect and of the commonwealth. The first detailed announcement of this important project involved \$300,000 for sculpture and \$150,000 for mural painting; the mural paintings are to be by Mr. Edwin A. Abbey, who is a native of the city, and the sculpture by a sculptor who was also born in that State, Mr. George Grey Barnard.

I think it would cause some discussion in the press if Mr. Ross and his Cabinet were to do likewise; still, there is no reason why they should not do it, and I think it would pay them to do it, as it will pay Harrisburg, in the number of people that will go to visit that town to see those mural decorations and to see that sculpture.

On mural painting as the greatest forms of painting I will now say a few words. Most people still seem to have an idea that mural painting is an inferior branch of art as compared with picture and portrait painting. This impression, however, soon passes away when they take the trouble to read art history or to seriously consider the decoration of any important surface with all its difficulties, intellectual and material.

A mere enumeration of the names of decorative artists ought to convince those who have not seriously considered the matter.

The greatest works of many of the greatest artists who ever lived, Michael Angelo, Raphael, Leonardo di Vinci, Correggio, Veronese, Tintoretto and others were essentially decorations. The landscape schools have arisen since the great decorative days of the Renaissance, therefore they had little practical part in the decorations of the past; but in a new decorative Renaissance, there is no reason why they should not play a part and a brilliant part too. For monumental public buildings it is probable that the great symbolical ideal, call it what you will, picture will remain the highest expression of mural art as in the Vatican, the Ducal Palace and the Sorbonne; but besides this and the historical picture, every other form of art finds place in decoration; the landscape and marine may be at once decorative and commemorative; the easel picture, if properly placed, properly lighted and properly hung may decorate a room even more delightfully, because more subtly, than would the finest porcelain or metal work.

Realistic portraits also would make magnificent decorations if properly panelled into walls and over mantels; this has been done in some of the "old world" buildings with magnificent results.

In our own City Hall there is an excellent illustration of how bad pictures look hung on a white wall without an architectural setting; they make nothing but a series of black holes and spots all along that corridor. That same corridor could easily have been panelled so as to have made a suitable frame or setting for the portraits of the various mayors of the city, past and to come.

NEW BUILDING REGULATIONS FOR
TORONTO.

Attention is called to some of the new building regulations for the city of Toronto printed in this number. These comprise only a section of the new building by-law which it is proposed to put in operation at an early date. The city architect and city council are to be commended for having taken prompt action in this matter, thereby forestalling the erection of an undesirable class of buildings. Unfortunately a difference of opinion has arisen between members of the architectural profession regarding the new regulations which have already been adopted. The chief objection raised is in relation to the clause specifying the percentage of window openings in walls, and providing for an increase in the thickness of the walls where the percentage of openings is increased. While it is desirable that the cost of buildings should not be unduly increased, and building enterprise thereby retarded, the new by-laws should compel the construction of substantial structures capable of withstanding fire. One of the chief requisites of such buildings should be substantial brick walls.

It is gratifying to note the energy with which the burnt district is being cleared and prepared for new buildings. It is not likely, however, that all the buildings destroyed will be immediately reconstructed. Probably not more than from one-third to one-half will be rebuilt this year, and probably some will never be rebuilt. A sufficient number will be erected, however, to insure an unusually active building season; already the demand for bricks and certain other lines of material is greater than the supply. The scarcity of these materials is likely to interfere with the progress of new buildings outside of the business quarter of the city.

NOTES FROM QUEBEC.

[BY A CORRESPONDENT.]

Just at the present moment there is no great activity manifest in the building trades of Quebec. The prospects, however, for the near future are very good, many of the leading architects have in hand plans for erection of new buildings, as well as the rebuilding of many old ones within the city, (mostly business houses), these in the aggregate would form a substantial total and should mean a good wave of prosperity to the various trades concerned. The present unsettled state of "labour" is consequently causing no little anxiety, and is making itself felt in the great difficulty experienced in getting contractors to give solid quotations.

There is a movement on hand among the labour unions to open their shops and undertake contracts for its members, but this is not expected to meet with great favor, one of the strongest objections being the difficulty there would be in getting guarantee of specific performance, which is now obtainable through a substantial contracting firm.

It is hoped that the painters difficulty will be settled before the 1st May and it is generally expected that this will be the case.

Should, however, the carpenters force a strike, as is threatened, the effects may be of such a character as to cause serious loss and hindrance to this year's business, and the carrying over to another season of several of the projects on hand.

In addition to the immediate work referred to in the city itself several of the leading architects have on hand some important work for other towns and districts, many of which are ecclesiastical buildings. Any development in the labour situation, would therefore be greatly deplored as a menace to the steady run of substantial business which appears to have set in.

The project to pull down and clear away the old and unsightly buildings at the top of Mountain St. has now taken tangible form and estimates for the work are expected to be called for shortly; this will give an additional area to open space of some 4,000 sq. ft. in a fine and imposing position.

It is also in contemplation, when this is done, to erect on this space a statue in honor of Mgr. de Laval, the founder of Laval University, which is in close proximity.

The Committee having this matter in hand are now considering as to the best course to follow, whether to call for drawings to be submitted for consideration and thus select the most suitable, or to instruct an individual architect to do the necessary drawings to the committee's instructions.

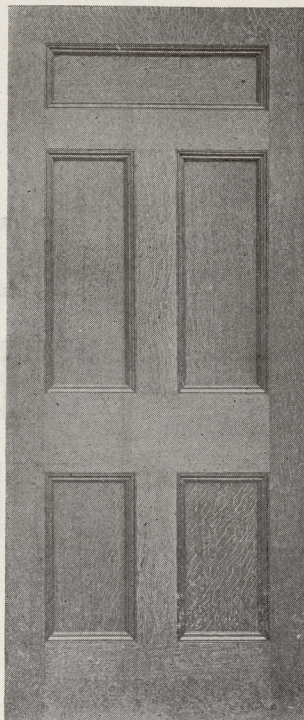
The continued steady system of improving the public buildings and open spaces, which has been followed by the municipal authorities during the past ten or fifteen years is now making a marked difference in the appearance of the city and general satisfaction is expressed with the result.

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BUILDING CONDITIONS IN MONTREAL.

Until quite recently it was believed that no difficulties were likely to arise this year between workmen and employers in the building trades in Montreal. This expectation has, however, been disappointed. A partial strike of stone cutters has already occurred. The painters' demand that the rate of wages be increased to 25 cents per hour and also that the working hours be reduced to 54 per week has failed. There is also difficulty on the part of the plumbers and bricklayers.

"Mandy, d'ye recollect how Henry Wiggins used to play marbles all the time when he was a little feller?"

"Goodness, yes."

"Well, he hain't got over his hankerin' after 'em yit; this piece in the paper 'bout millionaires' houses say he has one of the finest collections of Italian marbles in the hull world."—Brooklyn Life.

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MONTREAL LETTER.
No. II.

The remarks of "Gargoyle" in the last issue called forth in certain quarters some indignation as if it had been the intention to cast a slur on the fair name of Montreal, on account of practices in architectural matters in which the men who build in these parts fail to set their faces "straight to the instant need of things" or have at least so far failed to find adequate and satisfactory solu-



Government Offices in St. Gabriel St. C.S.B. Montreal May 1904.

tions in the case of some of the most pressing demands of the climate—perhaps partly for the very reason that the optimistic Canadian will persist in thinking that the rigours of his climate are entirely overestimated by the rest of the world and can really be met in any old way. These off-hand ways of meeting difficulties, though they may serve their utilitarian purpose for a while,

are little likely to be satisfying as a matter of art, least of all in architecture which demands before all things evidence of skillful forethought and the suggestion of permanence. Bacon's idea of art as the "adaption of the shows of things to the desires of the mind" is the golden rule that must inspire whatever of the handiwork of man is to find any lasting favor or good repute.

Though Montreal may not be a sinner above all other cities in these matters, yet the instances quoted by "Gargoyle" show that here as elsewhere we are far from any finality in the problem of meeting the case. To get our window sashes and other simple essentials efficient and at the same time satisfying to the eye is to have laid well the foundation of our architectural design. Without this the framework of our buildings may ascend to heaven but their souls will still cleave to the dust.

Some of the humbler old Montreal buildings referred to last month as exhibiting the satisfactory result of perfectly simple and at the same time perfectly unselfconscious methods of providing desirable accommodation and comfortable protection against climate are illustrated by sketches this month. They exhibit the common sense of a tradition inherited from intelligent workmen, wanting their buildings to be strong from the pleasure all men take in strength and to be comfortable because comfort was an idea that appealed to their own minds and they took a natural delight in finding themselves contributing to the sum of human happiness. At the opposite pole from these old homes stand the inanities which have been obviously considered by their builders as machines for turning coin into other men's pockets.

Amongst Montreal's old buildings however are to be found some of a more imposing air and of a public character, which whilst standing distinguished from their private and less assuming neighbors, still wear without affectation the mantle of directly inherited tradition. There is the Inland Revenue Building facing the river and there is a row of buildings in Notre Dame Street almost opposite the head of St. Lambert Hill which is quaint and pleasant. The building near the east end of St. James Street occupied by the Credit Foncier has more than a reminiscence of Adam's work. The Government Offices in St. Gabriel Street

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nearly opposite the wing of the Law Courts now in progress is a fine old building.

On the last mentioned building certain young gentlemen have lately been observed hard at work in their shirt sleeves with foot-rules, tape-lines and sketch-books, and it is understood that the McGill College School of Architecture is in this way seeking to preserve an authentic record of some of the ancient land marks of Montreal and at the same time to wean its students from drawing paper, photographs and plaster casts and to introduce them to things as they are in solid fact. As the sight of the student at hand to hand grapple with his subject is usually an inspiring and infectious object lesson to aspiring minds it will be surprising if others outside of McGill do not also take up this, the most natural and most delightful introduction to the study of architecture. Montreal may not possess many monuments of a quality to repay this sort of study, yet such as they are they make this city rich indeed in comparison with others that are entirely without them. They are sufficient to give the key to unlock the treasure-house of the past for all desirous to make the history and tradition of architecture of some value to their minds, and inasmuch as they are not so very far removed in date and sentiment from the present day they are all the more within the capacity of the young student to appreciate and derive benefit from.

Whilst on the question of architectural training it should be observed that the Province of Quebec Association of Architects has just announced a Scholarship which it is offering to students. This takes the form of four years training in the course for the Bachelor of Architecture Degree at McGill University offered free to one student presumably—each year. There is nothing very formidable in the list of subjects set for examination and any beginner who should be afraid to enter the contest would do well to seek his life's amusement and instruction in some other line of life than architecture. It is a common complaint against young architectural associations that they do little for the training of the youth of the profession—the complaint in general coming of course from the somnolent and unimaginative members who fail to realize that such an association has objects

to fulfil which if not more important, do at least require first attention. The Province of Quebec Association seems however to be making a beginning in this direction, and one must now look to students themselves to respond and to take some of that common interest in things which carries men so much farther than individual interest alone can do.

The revolution in the weather inaugurated on the 1st of May combined with the lapsing of old and entering upon of new leases on that date occasions a special stir amongst the building trades. Hence the time becomes a favorable one for strikes amongst workmen. The painters, the marble cutters and the plumbers have each had their various grievances to ventilate. The plumbers alone have sharply contested the issues at stake. In these matters again the climate becomes a factor which cannot be ignored. If work is to be impeded during the coldest months of the year working hours must naturally be longer during the favorable season or the country will fail to keep abreast of her neighbors. It is only cutting according to one's cloth.

GARGOYLE II.

BUSINESS NOTES.

The new organization of the Locomotive & Machine Co., of Montreal, Limited, is making rapid headway. They have recently moved to a fine suite of new offices in the Imperial Bank building, Montreal, overlooking Victoria Square, and are now fully organized for business. Their extensive works at Longue Point are under way and well nigh completed, and are equipped for almost unlimited expansion. The whole of the structural steel for these buildings, which is of a most complete nature, was manufactured by the company themselves, and are a marvel of completeness. It is intended that while keeping the Canadian company quite separate, at the same time to keep in close touch with the American company, so that the full advantage of the experience and progress of the American concern may be secured for the Canadian company.

NOTES.

The Master Plumbers' Association of Winnipeg held their first annual dinner on the 13th inst., which proved to be a most enjoyable event.

In a recent lecture on geology in Glasgow, Mr. A. McWilliams, A. R. S. M., stated that granite consisted mainly of two minerals, quartz (hardness proportionately 6) and felspar (hardness 7), whilst the hardness of a best-quality Sheffield pocket-knife blade was $6\frac{1}{2}$, the wearing powers of granite would therefore be readily understood. Pure clay with less than about 2 per cent. of potash and soda was a fireclay; if white, a china clay or a pipeclay; while containing 5 per cent. of oxides of iron and generally a fair amount of potash and soda it became an ordinary red brick clay.

A contractor with very large experience in Portland cement work, particularly in the making of walks and floors, asserts that he has never used any mixture of cement and sand for such purposes that has not been notably improved in wearing qualities by the addition of black color. Nor has he ever taken up work where black and gray tiles alternated in which the gray tiles were not inferior. When Mr. J. C. Plant finished the Phoenix building in Minneapolis with Portland cement tile floors in corridors and offices, the idea was so new as to be classed with the experiments. Red and gray tiles were used and the difference in the two is very noticeable at present, and all in favor of the colored tiles. Lampblack is generally used for coloring these tiles black, and in the absence of experience one would not predict advantage to come from its use, but so much evidence in favor of the colored tiles must be taken as conclusive.—Western Architect.

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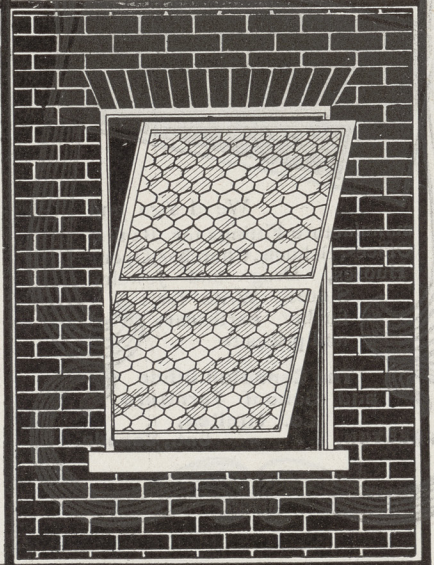
Its adoption lessens insurance rates.

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Better than iron shutters (even if they happened to be closed at the needed time); fire-proof glass remains intact, resisting both the intense heat of the fire and the action of water.



THE "ELLKAY" BATHROOM.

The accompanying illustrations show a portable bath, for use in bed-rooms, which when not in use can be folded up. This cabinet bathroom when closed occupies but little space and adds rather than detracts from the appearance of the room. The me



THE "ELLKAY" BATHROOM.

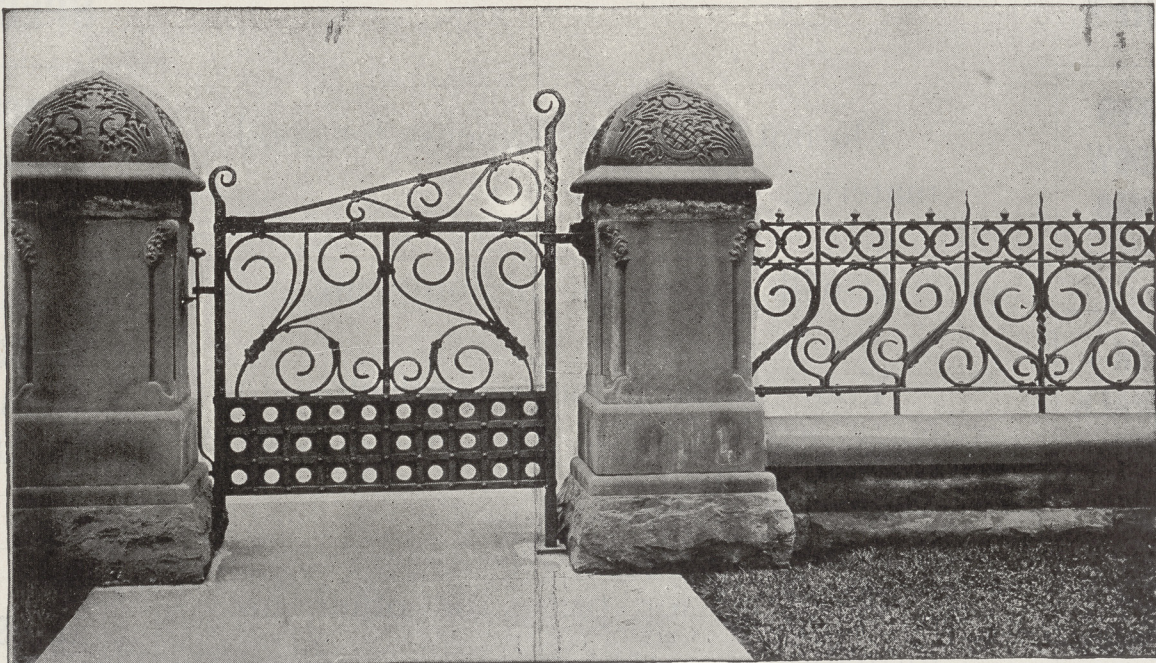
surements are only about 2ft. 9in. wide, 2ft. 1in. deep, 6ft. 6in high, and by means of these bathrooms two or more full-size baths can now be available in places of limited accommodation, where only one Bath is now possible, and even that at the cost of a separate room.

enclosed in the cabinet where there is no hot water supply.

The Ellkay Patent Bath Syndicate, Limited, Orchard street, Victoria street, Westminster, S.W., London, Eng., the manufacturers, have received many letters of recommendation from persons who have used this invention.

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A CRYSTAL BOOTH AT THE ST. LOUIS EXPOSITION.

No visitor to the St. Louis Exposition should fail to see the Crystal Booth Exhibit of The Bridgeport Wood Finishing Co., in the Liberal Arts Building, Block 75.

The building is constructed of clear rock crystal quartz, with a balustrade all around it making an especially attractive exhibit and when lighted up by numerous electric lights, the effect is indeed beautiful.

This company has also another exhibit in the Forestry Building, Block 14, consisting of various native woods all finished naturally finish being obtained by first filling with Wheeler's transparent No. 1 Wood Filler.

In both exhibits is also shown a full line of the various specialties made by this company, such as Breing's Lithogen Silicate Paint, Lithogen White Lead, Lithogen Primer, Japans, Dryers, Wood Stains, Polishers, etc.

The exhibits of this company are in charge of Mr. John Borden, who has had charge of its exhibits at various exhibitions for many years.

BUSINESS NOTES.

P. Oslin & Co., builders, have opened at Grenfell, N.W.T.

The Canadian Petrified Brick & Stone Co., Limited, of Winnipeg, has been incorporated, with a capital of \$100,000.

In the make up of any building which is to have inhabitants, the lighting fixtures is a most important feature, for on them depends much of the finished appearance of the structure. There are many lines of gas and electric lighting fixtures offered for sale throughout the world, but one that deserves the careful consideration of every purchaser is that which is manufactured by The James Morrison Brass Manufacturing Company, Limited, of Toronto, Ont. This old established house is noted for the excellent and superior gas and electric lighting fixtures which it manufactures and in its comprehensive showing of stock patterns are included almost everything that any fancy might desire, while the facilities of the company enable it to advantageously make to order special fixtures from specifications. If you are likely to be a purchaser of lighting fixtures, the Morrison Company's announcements will certainly be of interest to you.



The most artistic and durable color effects on shingles are produced with Shingletint, which is a scientific combination of linseed oil, coloring matter, creosote, and the necessary drying agents.

Among the many shingle stains offered Shingletint is conspicuous not only for its superiority but because it can be called for by its distinctive name, thus offering the consumer protection against inferior goods offered for the same purpose.

When buying Shingle Stains it will be worth while to ignore the "just as good" argument and insist upon Shingletint.

Stained woods and descriptive literature sent free upon request.

Most saleable and profitable line for the dealer. Write for our prices.

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Manufacturers of every grade of Varnish and Japan for every use known.

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Do not fear a little expense for good material.

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It will pay you in the long run.

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Your work is more satisfactory to your client and he is better pleased with what he has got.

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PRISMATIC GLASS.

The prismatic lighting of dark interiors has of recent years received considerable attention, says the Irish Builder, as it mitigates an evil necessarily associated with the crowding into towns and the erection of high buildings. Prismatic glass is a great improvement on the antiquated reflector, which was not only an eyesore, but generally inefficient, and all forms of such glass are to be recommended, though of course some are better than others, the most satisfactory test in commercial use being personal observation of the degree of improved lighting produced by various makers, for as each problem requires separate treatment and the glass needs to be proportioned as it were to the situation, it means that scientific application and intelligent supervision are often better than greater theoretical efficiency. The "MAXimum Light Glass" (an American invention) at the same time possesses many theoretical advantages. As regards the theoretical value of this patent form of prismatic glass, the fact that the John Scott Legacy medal of Edinburgh was awarded it testifies to its scientific design. The distinctive feature about "MAXimum Light Glass" is that it has a lenticular instead of the usual plane surface (i. e., its front side has a number of rounded ribs or panels, which are virtually lenses.) The lense ribs run transversely to the direction of the prisms on the inside surface. We would point out what this means.

By way of introduction we may state that the object of all prismatic glass is to gather light impinging in a downward direction at a more or less sharp angle, by reason of the narrowness of streets or courts, and to alter its direction so as to transmit it into the room. This is done by the prisms, the angles of which should be suited to the room so as to throw the light into the furthest corner; but this has led to the erroneous conclusion that as much of the light as possible should be transmitted parallel to the walls, floor and ceiling of the room. The result of such a procedure is that shadows are cast by objects in the room. After the first desideratum has been achieved, namely, that as much extraneous light as possible shall be directed into the interior, and practically all the designs in prismatic glass are equal theoretically in this respect, the next consideration is how to direct it to the best advantage, and, as shadows are most objectionable, to diffuse the light evenly over the room. The way to do this is to transmit the light on divergent lines so as to cause it to strike the bounding walls, ceiling and floor of the apartment

and be reflected from them so as to counteract and neutralize the shadows. Glass which is simply prismatic and not lenticular exaggerates the divergency of the transmitted light in the vertical plane only and directs the light in the horizontal plane in parallel lines without diverging it. If lenses are formed on the other (outward) face of the glass running exactly the same way as the prisms the divergency in the vertical plane is increased, but no alteration is caused as regards the horizontal plane. The lenses, however, have an indirect advantage over the flat surface by total reflection, and they look better than the latter. By running the lenticular panels transversely to the prisms the light is transmitted divergently in both the horizontal and the vertical planes, while additional light is gathered as explained above. In this way practically all shadows are overcome, especially if two windows can be placed in the same apartment, as then the light from one completely overlaps that from the other. This arrangement of lenses and prisms has the advantage also of giving extra strength and allows the larger size of prisms to be readily made, and also the thickness is less compared with other forms, which is an advantage, since there is a loss of light from absorption in every glass. The "MAXimum Light Glass" is made in larger sheets than usual, namely, 18 in. long by 60 in. high, and thus all the many usual joints are avoided. Twenty-one different angles are made, so that the glass may be suited to each particular condition of site and length of apartment. It has truer prisms without so many flaws or roughness as are usual in this kind of glass, and as each blemish means loss of efficiency, this is another important point. When the light comes from high up it reduces to a minimum the use of artificial light. It has been used in 1,200 different windows in London alone during the past month, and recently it has been fixed in several places in Dublin.

STRIKES IN CANADA.

The loss of time to employees through trade disputes throughout Canada during June was approximately 62,488 working days. This is an increase of nearly 30,000 days compared with the previous month, and is largely accounted for by a strike of iron and steel workers at Sydney, Nova Scotia, in which 39,000 working days were lost. In June, 1903, there was a loss of 122,612 working days, about 60,000 more than in the present year.

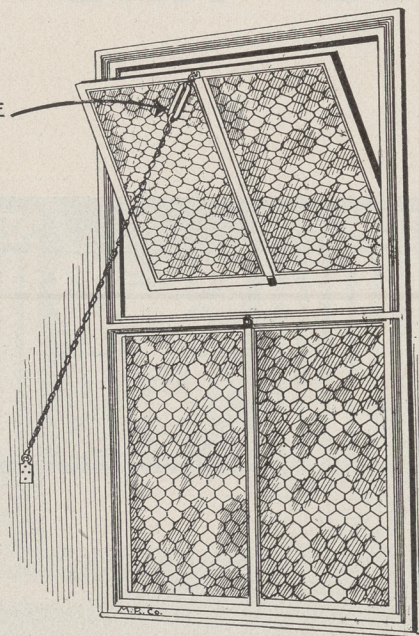
CANADIAN MARBLE.

A letter comes from Glasgow this week to the secretary of the Toronto Board of Trade. It asks for a general description of the marble being quarried in Canada, clear and natural, pointing out what defects, if any, exist, and asking for the names and addresses of the quarries and their agents, the size of the blocks available, with prices per cubic foot. Enquiry is also made regarding mode of delivery and cost thereof. This is a very circumstantial and business-like enquiry, and should have a very comprehensive answer. The Ontario Bureau of Mines can give valuable aid in filling the requisition, and the Ottawa publications of the Geological Survey. We would suggest correspondence with the Nova Scotia Department of Mines, or with the Crown Lands Department of Quebec. These provinces are both nearer the source of the enquiry. At the present time, so far as known, only two marble quarries are being worked in Ontario, both in the neighbourhood of Renfrew. There are, however, several unworked quarries in different sections, while in Algoma there is said to be marble of an excellent quality. According to Prof. Carter, the reason so few of these quarries are being worked lies in the demand for Tennessee marble, which has gained quite a market in Canada, though in many respects Ontario marbles are just as good. All the interior marble used in the Parliament Buildings, at Ottawa, is Renfrew stone. There is but little doubt that nearly all the marble quarries in Ontario could be easily and cheaply worked, and there seems no good reason why a strong demand should not be created for their products.

Messrs. Arnoldi & Ewart and Messrs. Band, Burritt & Meredith, architects, of Ottawa, have entered into partnership to carry on business in Ottawa, Toronto and Winnipeg under the name of "The Architectural and Engineering Co."

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By CYRUS JOHNSON.

The local or traveling representative has always seemed to me the real life and blood advertisement of the firm he represents, and no personal letter, printed circular, blotter, calender or souvenir can take his place.

I speak from experience as a draughtsman, architect and publisher, on personal acquaintance with many of the leading manufacturers and architects of the United States and the publishers of nearly all the architectural magazines and trade papers.

But letters, circulars and advertising literature are necessarily accompaniments to these representatives and it is in regard to this part of publicity that my statements will be confined.

An architect has ever been a different business proposition from any other man in any other profession, trade or walk in life.

He may be led to the trough, but you cannot make him drink.

He may be reasoned with, but never forced to any conclusion.

His impressions are early formed and difficult to change.

Your name once firmly engraved on his specification reminder it will remain in most cases for time to come.

What was law and gospel in the office where he traced his way to fame is good enough for his own office.

But it is needless to elaborate his distinguishing characteristics, only they must be considered in the preparation of catalogues, price lists, announcements or printed matter of any character.

An announcement that would appeal to a banker or broker would fall very flat to the average architect.

In regard to printed matter of any kind unless attractively compiled, printed on good stock and the

illustrations carefully selected, well engraved and properly printed, your money has been wasted.

And this brings me to the importance of having your announcements in the architectural magazines attractively set. These advertisements are only circulars or announcements mailed every issue to the subscribers among the architects, but they are watched even more carefully than you even imagine.

Because the architectural magazine advertisements do not bring the statement, "I saw your ad in the ———," do not infer that your money is being thrown away. It is one of the peculiarities of the architect that he would not mention the name of the publication.

This is true also of the contractor and smaller supply houses, who even avoid the use of the key.

But it is the persistency of circulars, announcements and advertisements, backed by attractive arrangement, that counts. The draughtsman of to-day is the architect and engineer of to-morrow. You must cast your bread on the water of the present for the business of the future.

It always seemed strange to me that knowing the architect's fondness for pictures that they are not more liberally used in your announcements and that the bare cards are allowed to run month after month, year after year in the different journals without change. The publisher is anxious to improve the appearance of his paper and gladly welcomes the new life and interest evidenced by attractive advertising copy. The architectural paper by its news items and articles keeps you posted as to what the best men are doing.

The architects watch it and read it to see what the other fellow is doing.

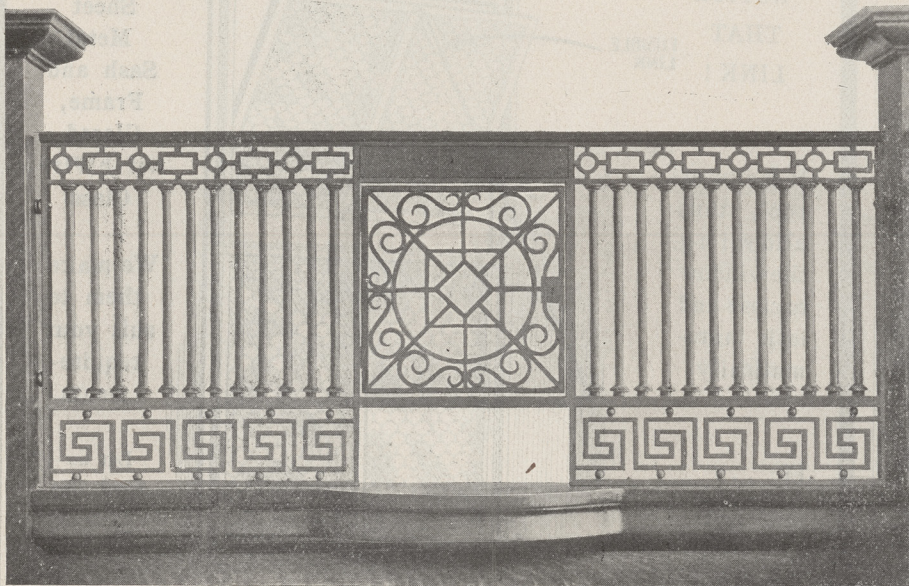
Concentrate your efforts for new goods and materials on those who are busy.

Strengthen your statements with testimonials and tests.

The busier you get advertise the more. Then should a dull season come you will hold on where others fail.

—The St. Louis Builder.

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NOTES.

The twin central towers on the Machinery Palace at the World's Fair are 265 feet high.

The carpenters and joiners of Quebec, are demanding an eight hour day and 25 cents per hour.

Building permits to the value of \$300,000 have been issued in Vancouver this year. An active season is looked for, the Building Inspectors estimate being an expenditure of \$2,000,000 as compared with \$1,500,000 last year. A large sum will be spent on the construction of houses, the demand for which greatly exceeds the supply.

One of the twelve massive bronze cornices which are being made for Senator William A. Clark's \$5,000,000 residence in New York City, and two bronze statues for the same structure, have reached the World's Fair for exhibition. The cornices are thirteen feet high and eight feet in width. The style of architecture is Louis XVI. The value of the twelve pieces is \$100,000. The statues are two striking pieces in bronze by George Gray Barhane and are entitled "God Pan" and "The Hearer." Each is cast in a single piece.

BUSINESS NOTES.

The Richter Manufacturing Company, of Tenafly, N.J., manufacturers of burlaps, propose to establish a branch factory in Canada.

The Canadian Commercial agent at Sydney reports that in the Australian markets there should be a good opening for heating apparatus. He thinks that in churches, schools and shops beyond the coast line a manufacturer would find a good trade if considerable capital were forthcoming to ensure an ultimately profitable business.

From the British Clayworker it is learned that Messrs. James Buchanan and Son, brick machinery manufacturers, of Liverpool, have received an important order for the entire plant and machinery and other accessories, for a new and large brickworks for Canada. The machinery is intended to treat shales, fire-clay, also surface clay, for making common, buff, red-facing bricks, also machine and hand-made fire-bricks on four different processes, to suit the different materials.



The most artistic and durable color effects on shingles are produced with Shingletint, which is a scientific combination of linseed oil, coloring matter, creosote, and the necessary drying agents.

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It will pay you in the long run.

Your work is more satisfactory to your client and he is better pleased with what he has got.

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GLASS**

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**ART
GLASS**

Luxfer Prism Company, Limited,
100 King Street West, TORONTO

ARBITRATION OF TRADE DISPUTES.

A conference of representatives of the Ontario Association of Architects, the Architectural Eighteen Club, the Builders' Exchange and the Trades and Labor Council of Toronto, was held a few days ago in the rooms of the Ontario Association of Architects to consider whether an agreement might be reached in which matters under dispute between contractors and workmen might be adjusted by a board of arbitrators and strikes in the building trades avoided. The conference was of a very friendly character, and resulted in the ratification by the persons present of a form of agreement submitted by Mr. W. L. Symons, President of the Ontario Association of Architects. Copies of this agreement will be submitted to the Builders'

Exchange and the Trades and Labor Council for further consideration and approval.

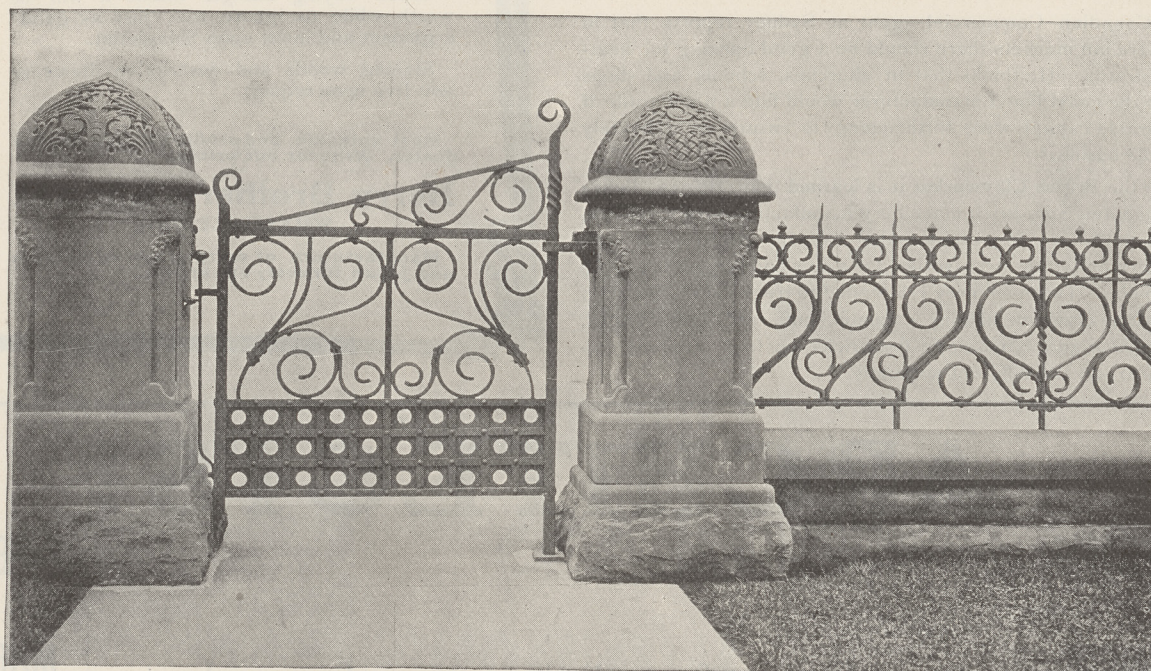
NOTES.

Mr. E. Rodgers, Building Inspector of Winnipeg, reports that up to the end of March, there were 127 permits granted for the erection of 215 buildings, at a total estimated cost of almost three-quarters of a million dollars, or to be exact, \$719,000. In comparison with the same period of last year, the increase in the number of permits is 9; in buildings, 92; in expenditure, \$202,580.

The Western Architect states that machine window glass is reaching the market and elicits most contradictory reports. Some lots are reported as very straight and clear, but thin; while others are said to be thin and anything but straight. A very high authority in the glass trade expresses entire confidence in the ultimate success of the process, and says that the thinness is now being remedied.

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